

Confidentiality Requested:

☒ Yes ☐ NoKANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed
Form must be Signed
All blanks must be FilledWELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 9855
 Name: Grand Mesa Operating Company
 Address 1: 1700 N WATERFRONT PKWY BLDG 600
 Address 2: _____
 City: WICHITA State: KS Zip: 67206 + 5514
 Contact Person: Michael J Reilly
 Phone: (316) 265-3000
 CONTRACTOR: License # 5123
 Name: Pickrell Drilling Company, Inc.
 Wellsite Geologist: Garet Dinkel
 Purchaser: N/A

Designate Type of Completion:

☒ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ WSW ☐ SWD
☐ Gas ☒ DH ☐ EOR
☐ OG ☐ GSW
☐ CM (Coal Bed Methane)
☐ Cathodic ☐ Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #: _____
☐ Dual Completion Permit #: _____
☐ SWD Permit #: _____
☐ EOR Permit #: _____
☐ GSW Permit #: _____

06/29/2023 07/07/2023 07/08/2023
 Spud Date or Date Reached TD Completion Date or
 Recompletion Date Recompletion Date

API No.: 15-135-26208-00-00

Spot Description: _____

NE - NE - NE - NW Sec. 28 Twp. 19 S. R. 23 ☐ East ☒ West
152 Feet from ☒ North / ☐ South Line of Section
2468 Feet from ☐ East / ☒ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☐ NE ☒ NW ☐ SE ☐ SWGPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84County: NessLease Name: ANTENEN UNIT Well #: 1-28

Field Name: _____

Producing Formation: NoneElevation: Ground: 2283 Kelly Bushing: 2290Total Vertical Depth: 4541 Plug Back Total Depth: _____Amount of Surface Pipe Set and Cemented at: 263 FeetMultiple Stage Cementing Collar Used? ☐ Yes ☒ No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 9100 ppm Fluid volume: 1146 bblsDewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Whitetail CrudeLease Name: Ekey 2 License #: 31627Quarter SE Sec. 21 Twp. 19 S. R. 24 ☐ East ☒ WestCounty: Ness Permit #: D26517.0

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☐ Confidentiality Requested
 Date: 08/14/2023
☐ Confidential Release Date: 08/13/2025
☒ Wireline Log Received ☒ Drill Stem Tests Received
☒ Geologist Report / Mud Logs Received
☐ UIC Distribution
 ALT ☐ I ☒ II ☐ III Approved by: David Befort Date: 08/15/2023

Operator Name: Grand Mesa Operating Company Lease Name: ANTENEN UNIT Well #: 1-28
 Sec. 28 Twp. 19 S. R. 23 ☐ East ☒ West County: Ness

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☒ Yes ☐ No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey ☒ Yes ☐ No Cores Taken ☐ Yes ☒ No Electric Log Run ☒ Yes ☐ No Geologist Report / Mud Logs ☒ Yes ☐ No List All E. Logs Run: Attached	☒ Log Formation (Top), Depth and Datum ☐ Sample Name Attached Top Attached Datum Attached
--	--

CASING RECORD ☒ New ☐ Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	263	Standard	200	2%Gel, 3%CC

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate				
☐ Protect Casing	-			
☐ Plug Back TD				
☐ Plug Off Zone	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☒ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:		Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top _____ Bottom _____
---	---	--

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>
TUBING RECORD: Size: _____ Set At: _____ Packer At: _____					

Form	ACO1 - Well Completion
Operator	Grand Mesa Operating Company
Well Name	ANTENEN UNIT 1-28
Doc ID	1721456

All Electric Logs Run

CDN PE/LOG
DI LOG
MICRO LOG
SONIC LOG

Form	ACO1 - Well Completion
Operator	Grand Mesa Operating Company
Well Name	ANTENEN UNIT 1-28
Doc ID	1721456

Tops

Name	Top	Datum
Stone Corral	1547	+743
Heebner Shale	3720	-1430
Hushpuckney Shale	4053	-1763
Fort Scott	4280	-190
Basal Penn Lst	4342	-2052
Cherokee Sand	ABST	N/A
Mississippian	4359	-2069
Fern Clen	4446	-2156
Gilmore City	4515	-2225
LTD	4541	N/A

Form	ACO1 - Well Completion
Operator	Grand Mesa Operating Company
Well Name	ANTENEN UNIT 1-28
Doc ID	1721456

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	263	Standard	200	2%Gel, 3%CC

SWIFT Services, Inc.

DATE _____

6-29-2023

PAGE NO.

1

CUSTOMER

CUSTOMER
GRAND MESA OPER.

WELL NO.

1-28

LEASE

ANTENEN UNIT

JOB TYPE

JOB TYPE
85/8 SURFACE

TICKET NO.

ET NO.
34985

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1900							ON LOCATION
								TD-264 SET = 264 TP-264 8 5/8 #/FT 23 15' CEMENT LEFT IN CASING
	1945							BREAK CIRCULATION
	2005	5	48 1/2		✓		150	MIX CEMENT-200 SKS STANDARD 2% GEL, 3% CC
	2015	6	0		✓		250	DISPLACE CEMENT
	2018		16					CEMENT DISPLACED - SHUT IN CIRCULATED 35 SKS CEMENT TO PZT WASH TRUCK
	2100							JOB COMPLETE
								THANK YOU WAYNE, KERRY, JAW



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co, Inc.

28 19s 23w Ness Ks

1700 N Waterfront Pkwy
Bldg 600
Wichita, Ks 67206
ATTN: Garett Dinkel

Antenen Unit #1-28

Job Ticket: 70241

DST#: 1

Test Start: 2023.07.04 @ 00:41:00

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:30:30

Time Test Ended: 09:42:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: **4240.00 ft (KB) To 4305.00 ft (KB) (TVD)**

Total Depth: 4305.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8845 Outside

Press@RunDepth: 62.56 psig @ 4241.00 ft (KB)

Start Date: 2023.07.04

End Date:

2023.07.04

Capacity: 8000.00 psig

Last Calib.: 2023.07.04

Start Time: 00:41:05

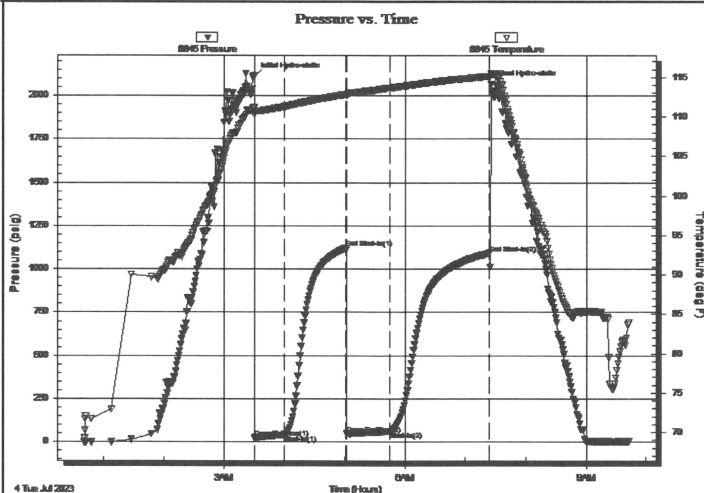
End Time:

09:42:45

Time On Btm: 2023.07.04 @ 03:30:15

Time Off Btm: 2023.07.04 @ 07:25:45

TEST COMMENT: IF: 3/4" blow .
IS: No return.
FF: 1" blow ,
FS: No return. 30-60-45-90



PRESSURE SUMMARY

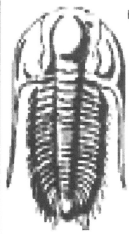
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.28	111.13	Initial Hydro-static
1	24.25	110.27	Open To Flow (1)
30	42.44	111.27	Shut-In(1)
92	1121.63	112.82	End Shut-In(1)
92	48.97	112.64	Open To Flow (2)
136	62.56	113.65	Shut-In(2)
234	1092.39	115.13	End Shut-In(2)
236	2067.12	115.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Mud 100m (oil spots in tool)	0.49

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co, Inc.

28 19s 23w Ness Ks

1700 N Waterfront Pkwy
Bldg 600
Wichita, Ks 67206
ATTN: Garett Dinkel

Antenen Unit #1-28

Job Ticket: 70241

DST#: 1

Test Start: 2023.07.04 @ 00:41:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	Mud 100m (oil spots in tool)	0.492

Total Length: 100.00 ft Total Volume: 0.492 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8845

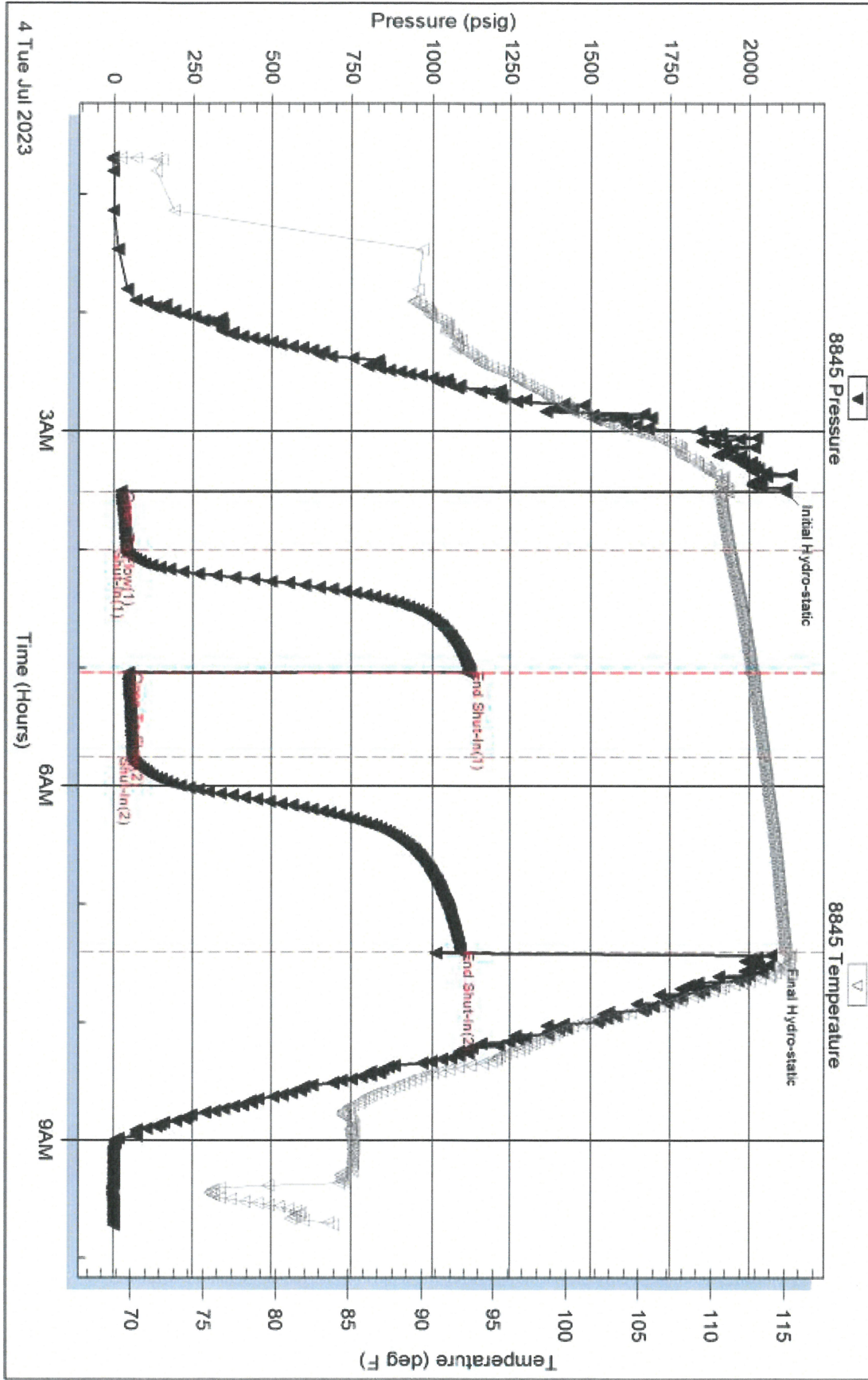
Outside

Grand Mesa Operating Co. Inc.

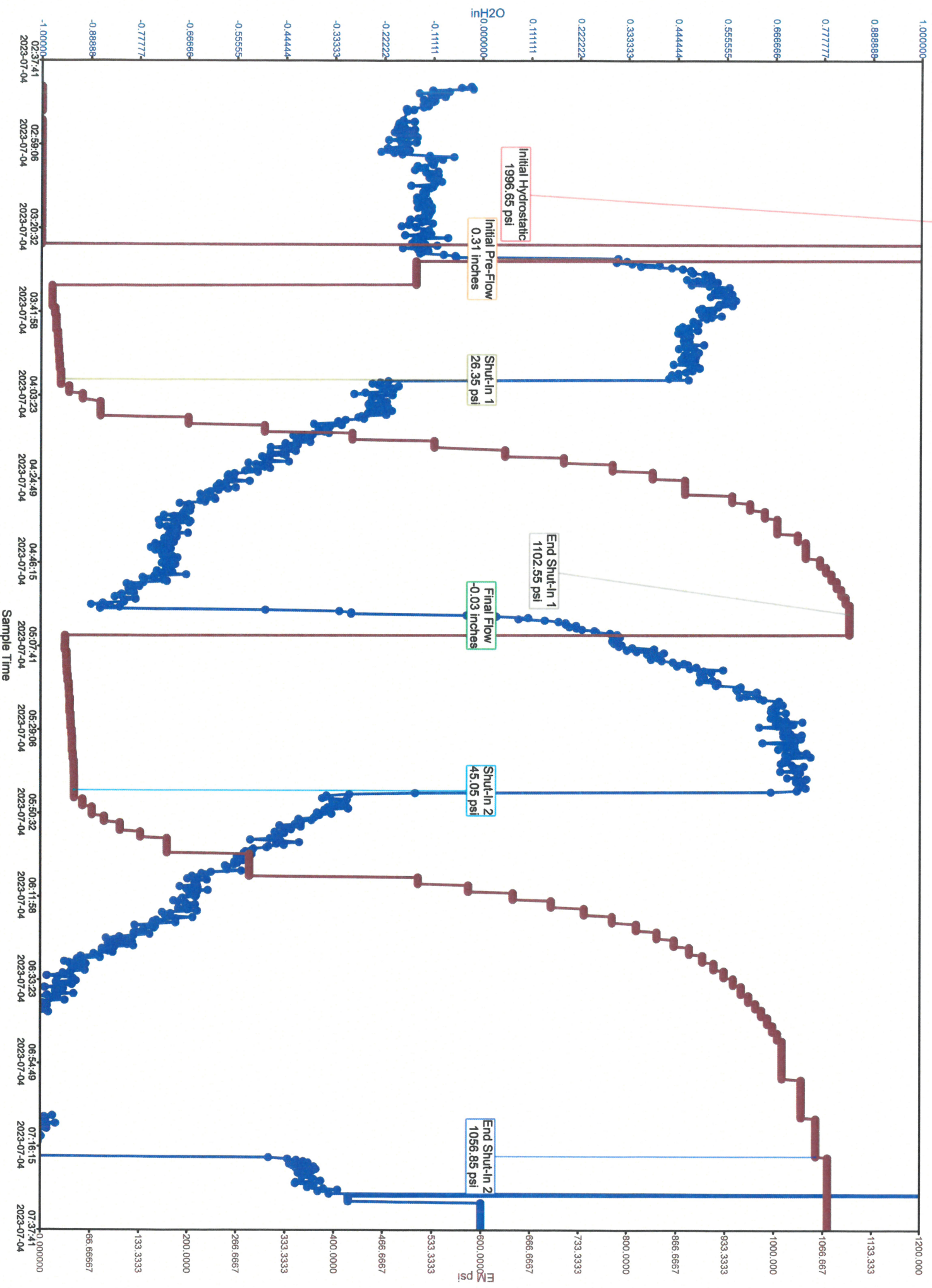
Antenna Unit #1-28

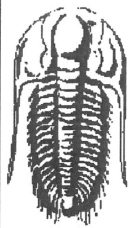
DST Test Number: 1

Pressure vs. Time



Grand Mesa Oil Company - Antenen Unit 1-28 - DST #1





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co, Inc.

1700 N Waterfront Pkwy
Bldg 600
Wichita, Ks 67206
ATTN: Garett Dinkel

28 19s 23w Ness Ks

Antenen Unit #1-28

Job Ticket: 70242

DST#: 2

Test Start: 2023.07.04 @ 23:16:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:45

Time Test Ended: 07:42:45

Interval: 4335.00 ft (KB) To 4383.00 ft (KB) (TVD)

Total Depth: 4305.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8845

Outside

Press@RunDepth: 53.02 psig @ 4336.00 ft (KB)

Start Date: 2023.07.04

End Date:

2023.07.05

Start Time: 23:16:05

End Time:

07:42:44

Capacity: 8000.00 psig

Last Calib.: 2023.07.05

Time On Btm: 2023.07.05 @ 02:03:30

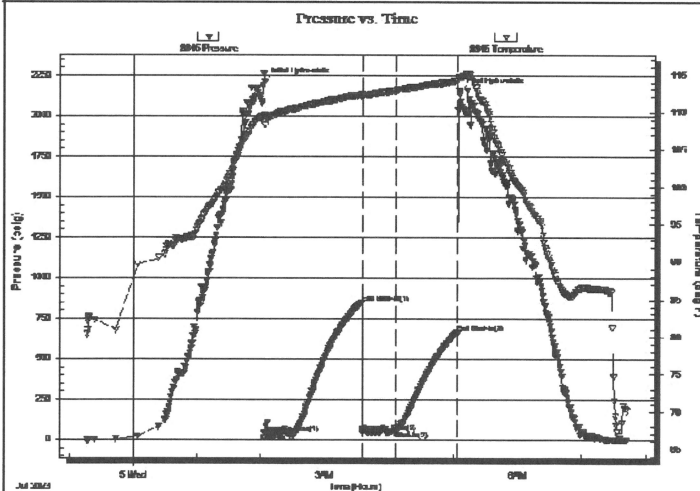
Time Off Btm: 2023.07.05 @ 05:05:30

TEST COMMENT: IF: 1" blow . receding to 1/2"

IS: No return.

FF: Surface blow , died in 20 min.

FSI: No return. 30-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.26	109.54	Initial Hydro-static
1	41.87	108.25	Open To Flow (1)
28	42.09	110.43	Shut-In (1)
91	848.02	112.34	End Shut-In (1)
92	51.54	112.03	Open To Flow (2)
123	53.02	112.93	Shut-In (2)
180	666.92	114.15	End Shut-In (2)
182	2153.25	114.69	Final Hydro-static

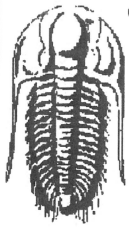
Recovery

Length (ft)	Description	Volume (bbl)
45.00	ocm 50 95m	0.22

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co, Inc.

1700 N Waterfront Pkw y
Bldg 600
Wichita, Ks 67206
ATTN: Garet Dinkel

28 19s 23w Ness Ks

Antenen Unit #1-28

Job Ticket: 70242

DST#: 2

Test Start: 2023.07.04 @ 23:16:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:45

Time Test Ended: 07:42:45

Interval: 4335.00 ft (KB) To 4383.00 ft (KB) (TVD)

Total Depth: 4305.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8319 Inside

Press@RunDepth: psig @ 4336.00 ft (KB)

Start Date: 2023.07.04

End Date: 2023.07.05

Capacity: 8000.00 psig

Last Calib.: 2023.07.05

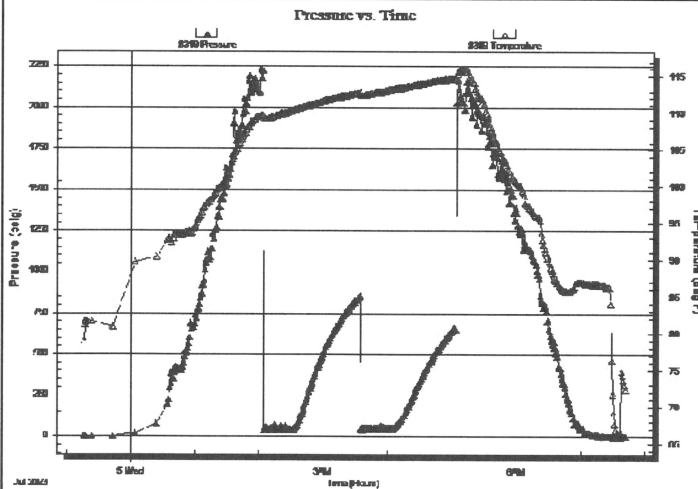
Start Time: 23:16:05

End Time: 07:42:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 1" blow . receding to 1/2"
IS: No return.
FF: Surface blow , died in 20 min.
FS: No return. 30-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
-------------	-----------------	--------------	------------

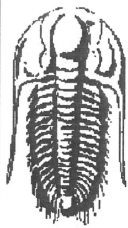
Recovery

Length (ft)	Description	Volume (bbl)
45.00	ocm 5o 95m	0.22

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co, Inc.

28 19s 23w Ness Ks

1700 N Waterfront Pkwy

Antenen Unit #1-28

Bldg 600

Job Ticket: 70242

DST#: 2

Wichita, Ks 67206

Test Start: 2023.07.04 @ 23:16:00

ATTN: Garett Dinkel

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	ocm 5o 95m	0.221

Total Length: 45.00 ft

Total Volume: 0.221 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

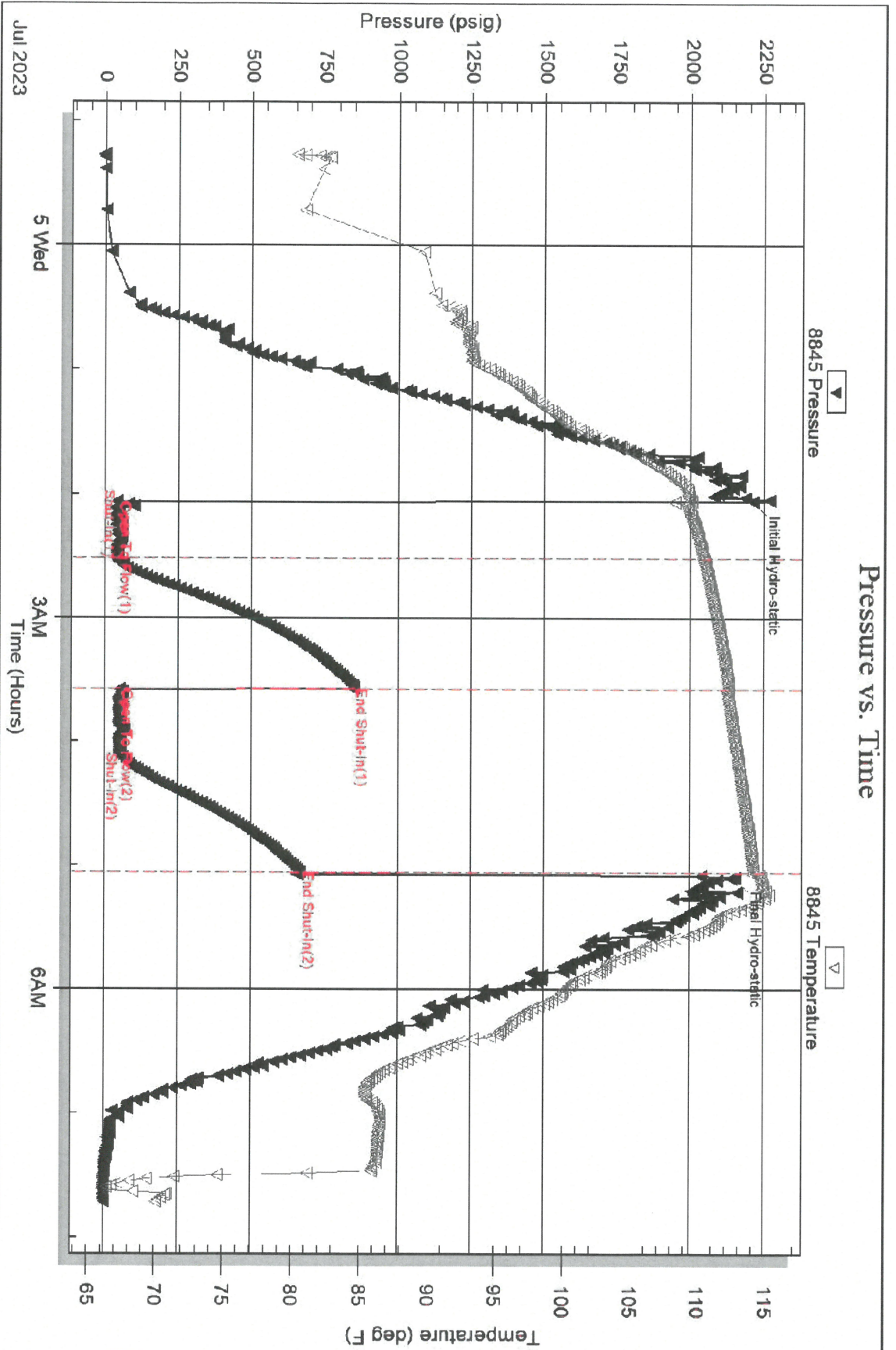
Serial #: 8845

Outside

Grand Mesa Operating Co., Inc.

Antenna Unit #1-28

DST Test Number: 2



Serial #: 8319

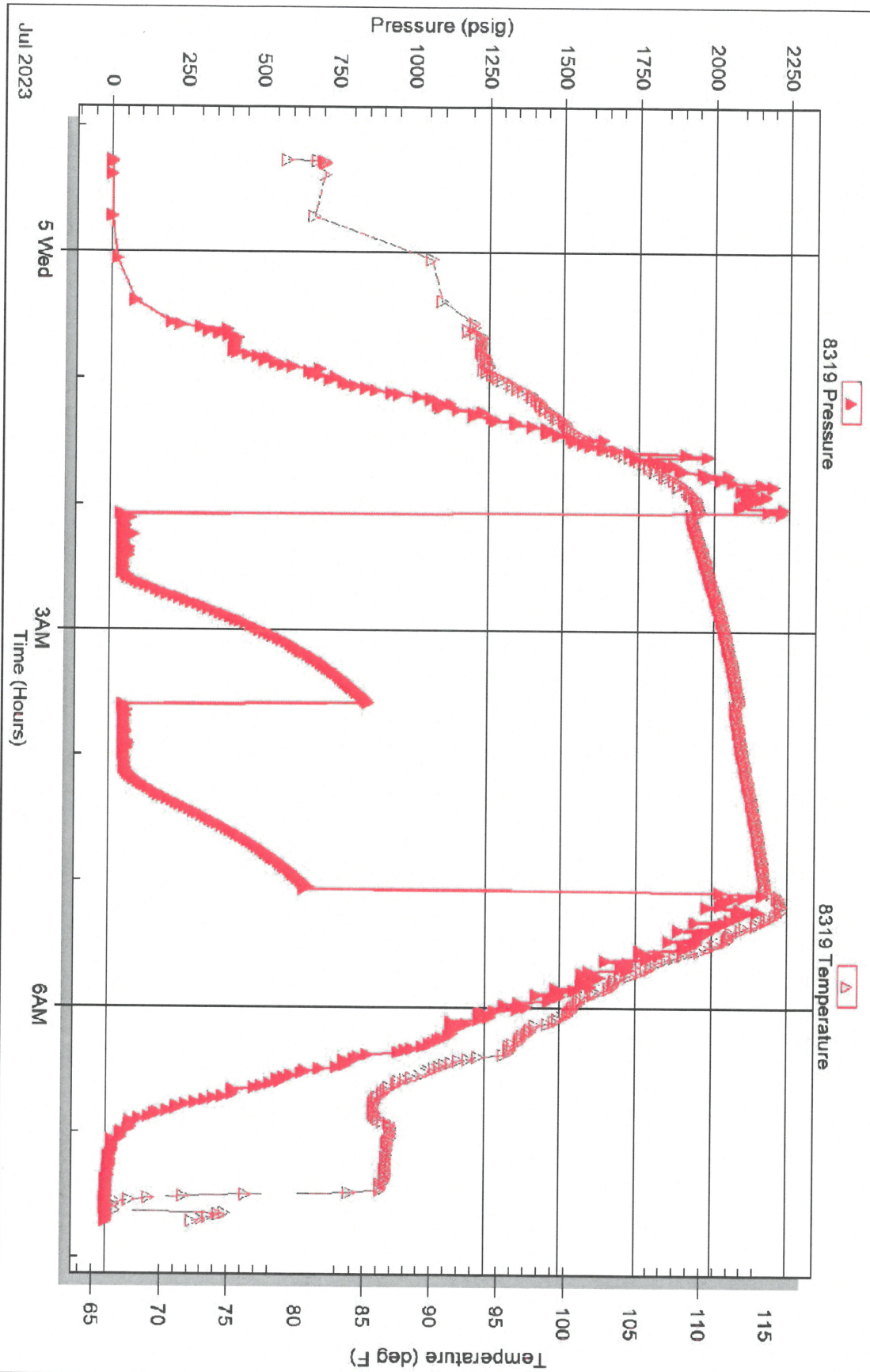
Inside

Grand Mesa Operating Co., Inc.

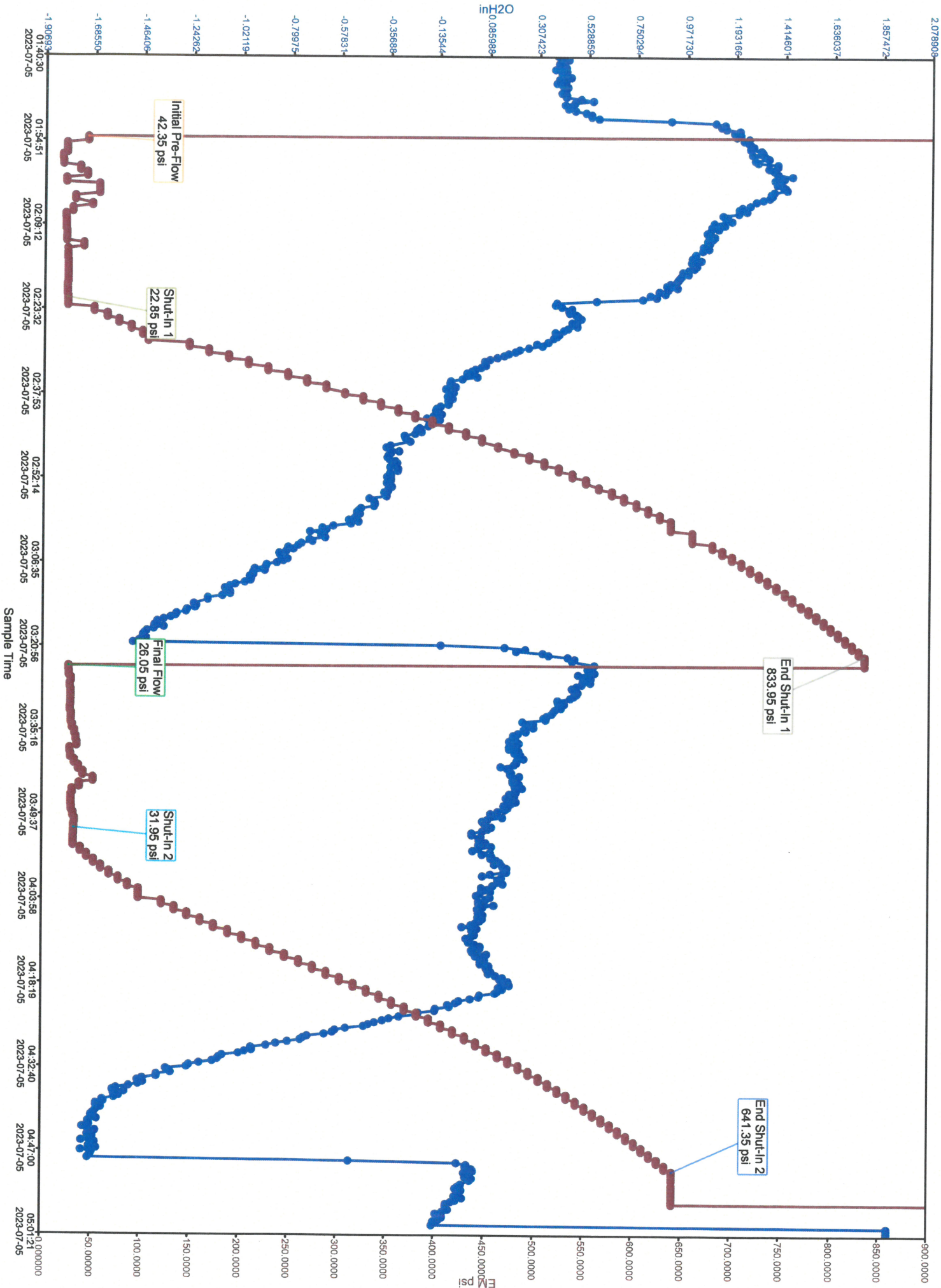
Antenna Unit #1-28

DST Test Number: 2

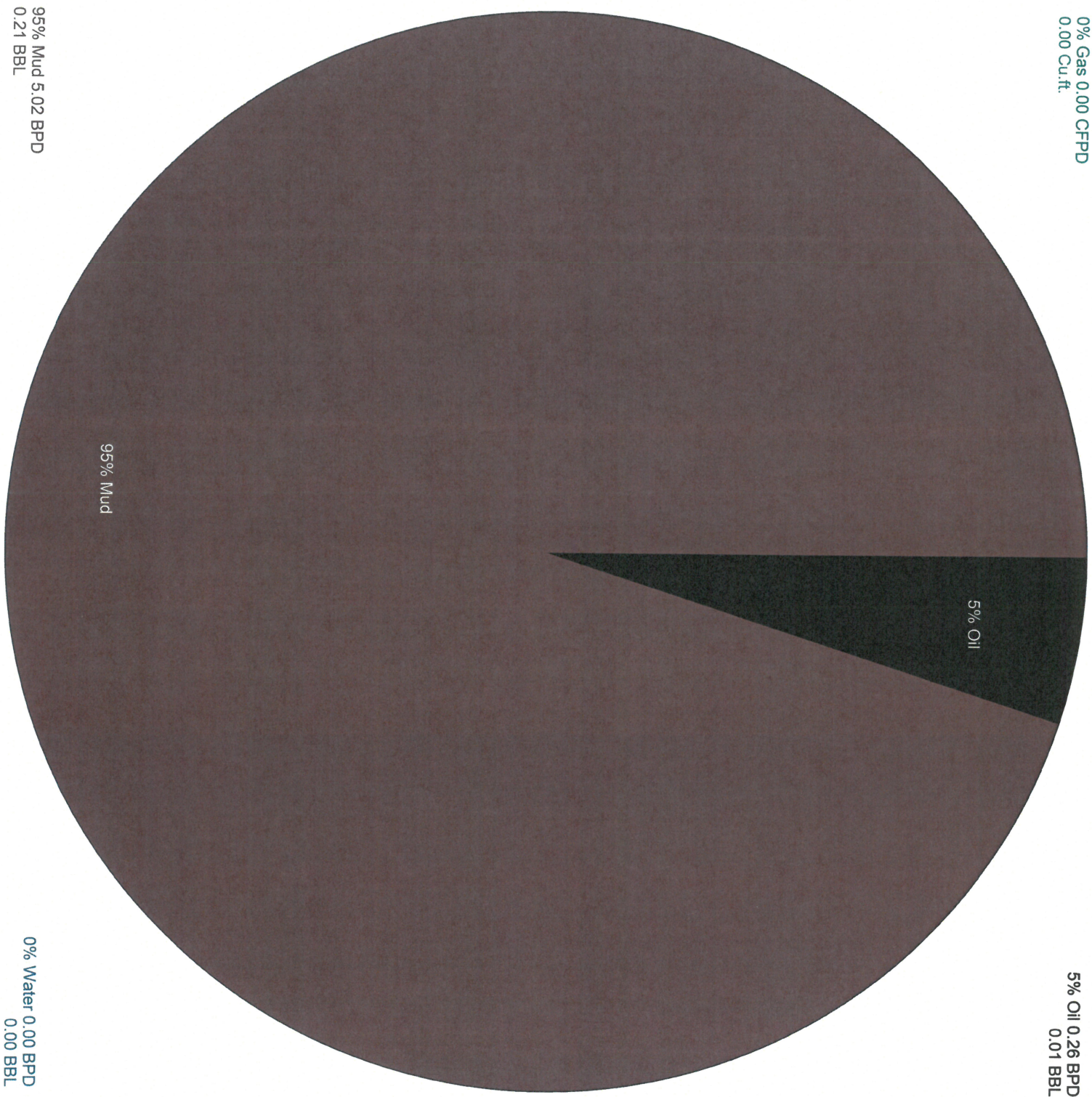
Pressure vs. Time

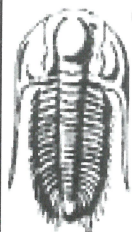


Grand Mesa Oil Company - Antenen Unit 1-28 - DST #2



Calculated Recovery Analysis - Grand Mesa Oil Company - Antenen Unit 1-28 - DST #2





TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront Pkwy
Bldg 600
Wichita, Ks 67206
ATTN: Garett Dinkel

28 19s 23w Ness Ks

Antenen Unit #1-28

Job Ticket: 70243

DST#: 3

Test Start: 2023.07.05 @ 14:43:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:50:30

Time Test Ended: 22:05:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: **4330.00 ft (KB) To 4393.00 ft (KB) (TVD)**

Total Depth: 4393.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8845 Outside

Press@RunDepth: 55.20 psig @ 4331.00 ft (KB)

Start Date: 2023.07.05 End Date: 2023.07.05

Start Time: 14:43:05 End Time: 22:05:29

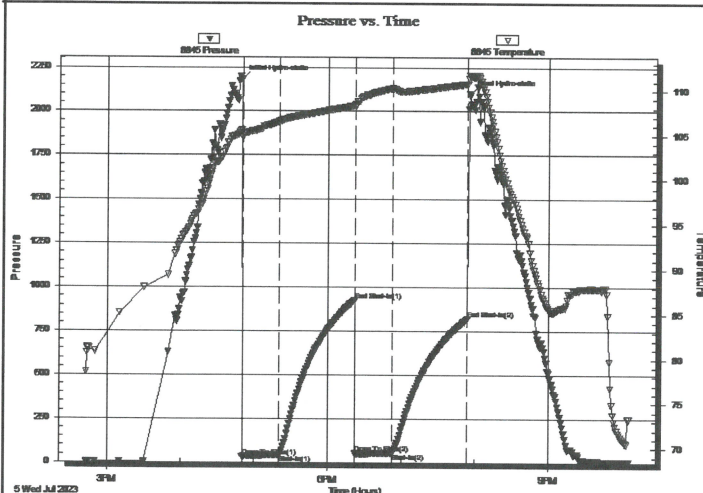
Capacity: 8000.00 psig

Last Calib.: 2023.07.05

Time On Btm: 2023.07.05 @ 16:50:00

Time Off Btm: 2023.07.05 @ 19:55:30

TEST COMMENT: IF: 1" blow
IS: No return.
FF: Surface blow,
FSI: No return. 30-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2179.82	105.57	Initial Hydro-static
1	32.08	104.79	Open To Flow (1)
31	42.72	106.52	Shut-In(1)
92	925.86	108.32	End Shut-In(1)
93	51.19	108.23	Open To Flow (2)
123	55.20	110.25	Shut-In(2)
184	819.57	110.76	End Shut-In(2)
186	2099.69	111.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	socm 2o 98m	0.31
2.00	oil 100o	0.01

* Recovery from multiple tests

Gas Rates

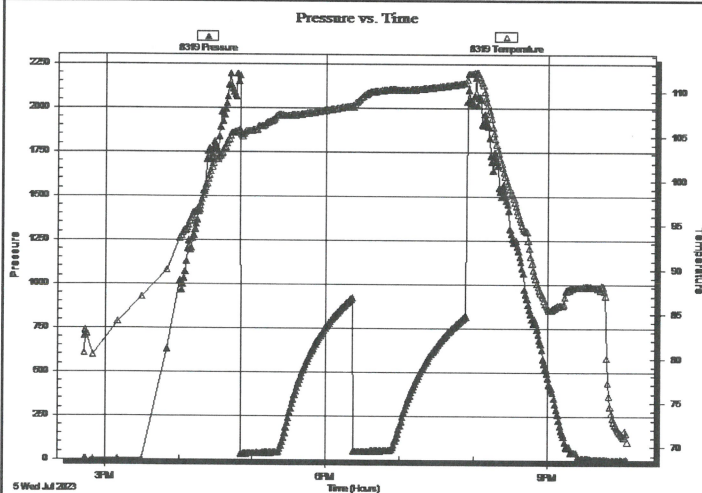
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



Test Start: 2023.07.05 @ 14:43:00

KB to GR/CF: 7.00 ft

TEST COMMENT: IF: 1" blow
IS: No return.
FF: Surface blow ,
FSI: No return. 30-60-30-60



Annotation

Length (ft)	Description	Volume (bbl)
63.00	socm 2o 98m	0.31
2.00	oil 100o	0.01

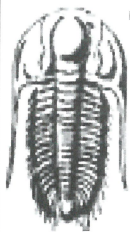
* Recovery from multiple tests

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------

Choke (inches)

Pressure (psig)

Gas Rate (Mcf/d)



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co.

28 19s 23w Ness Ks

1700 N Waterfront Pkwy

Antenen Unit #1-28

Bldg 600

Job Ticket: 70243

DST#: 3

Wichita, Ks 67206

Test Start: 2023.07.05 @ 14:43:00

ATTN: Garet Dinkel

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	socm 2o 98m	0.310
2.00	oil 100o	0.010

Total Length: 65.00 ft

Total Volume: 0.320 bbl

Num Fluid Samples: 0

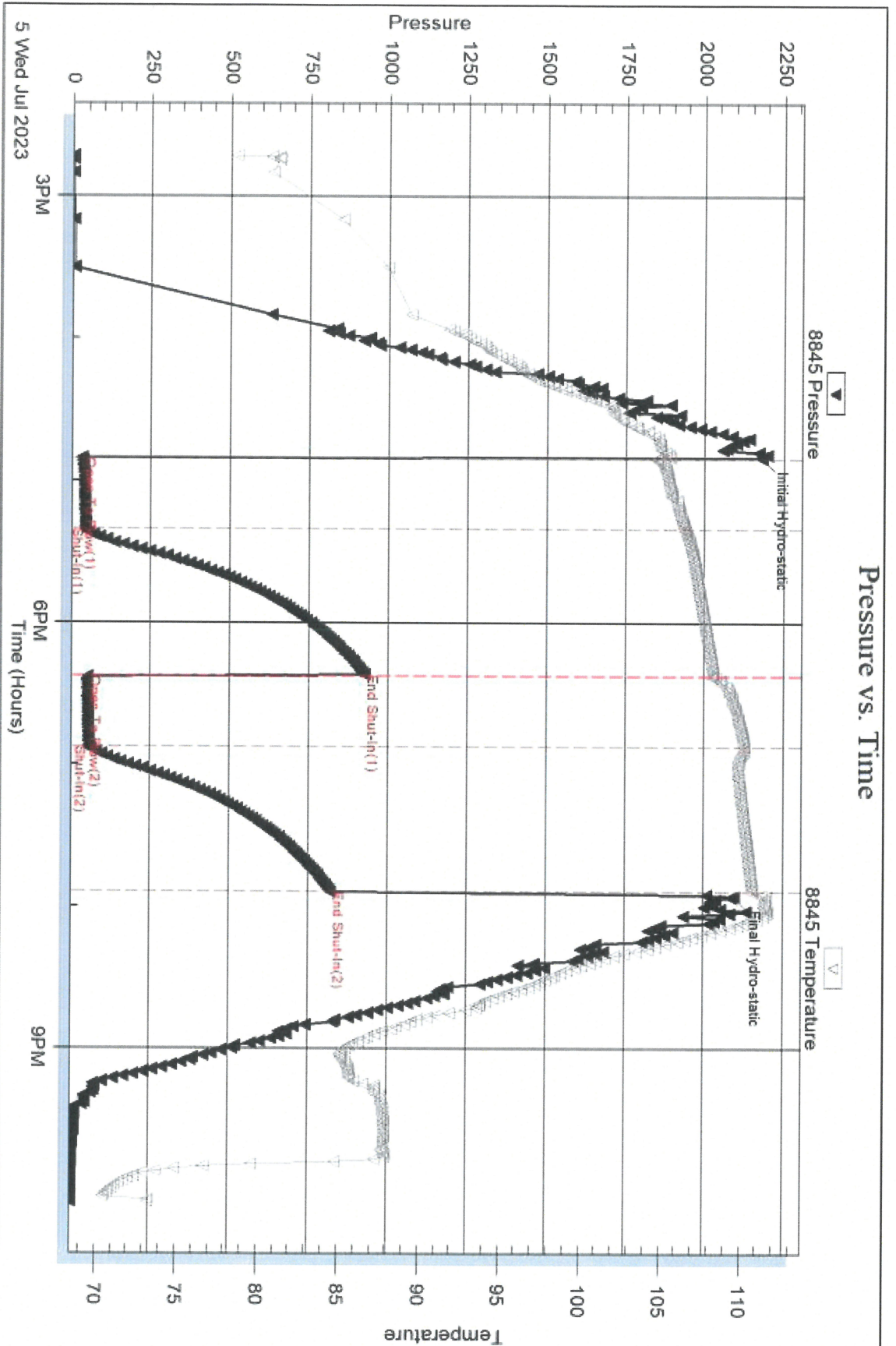
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8319

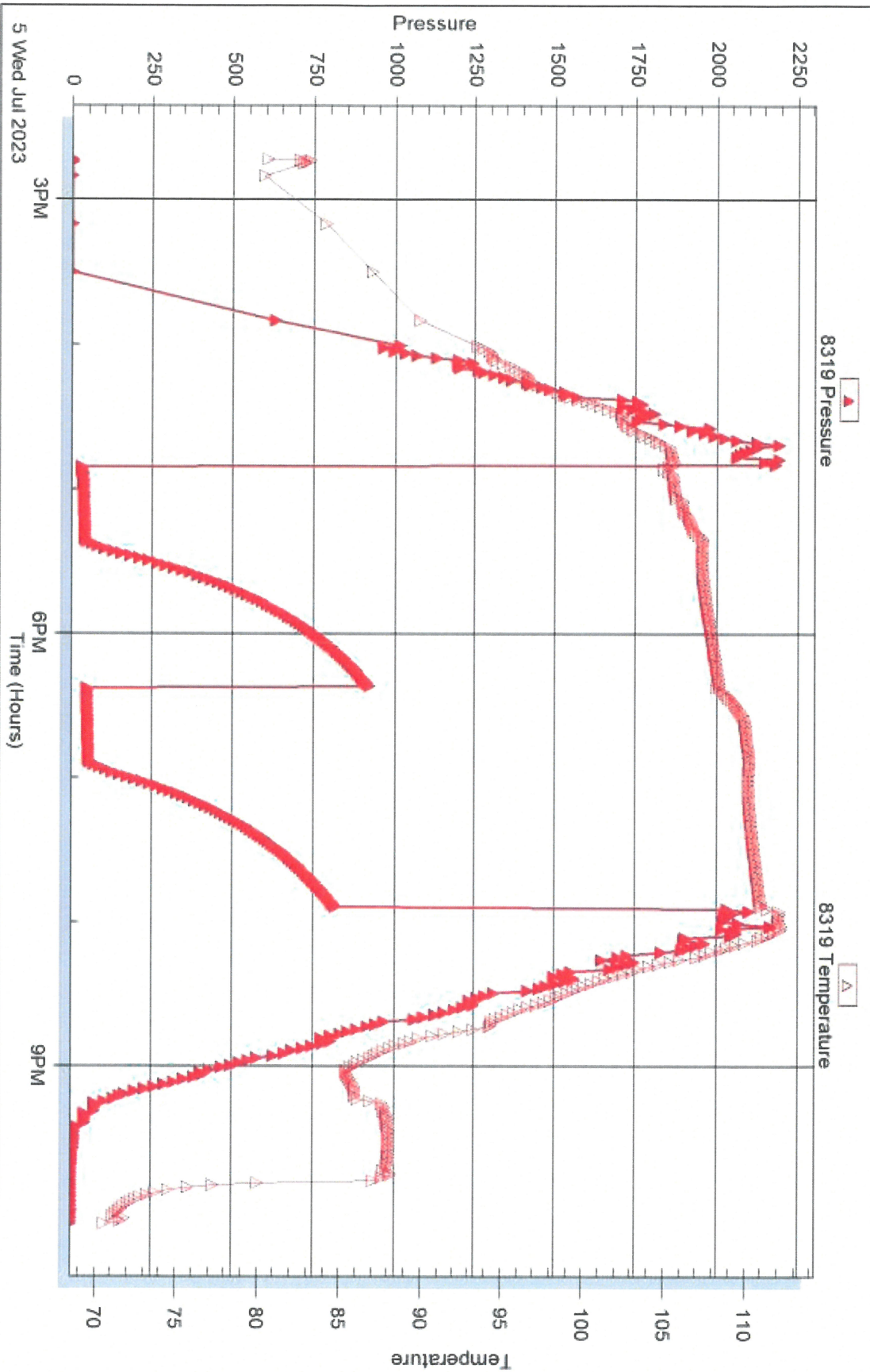
Inside

Grand Mesa Operating Co.

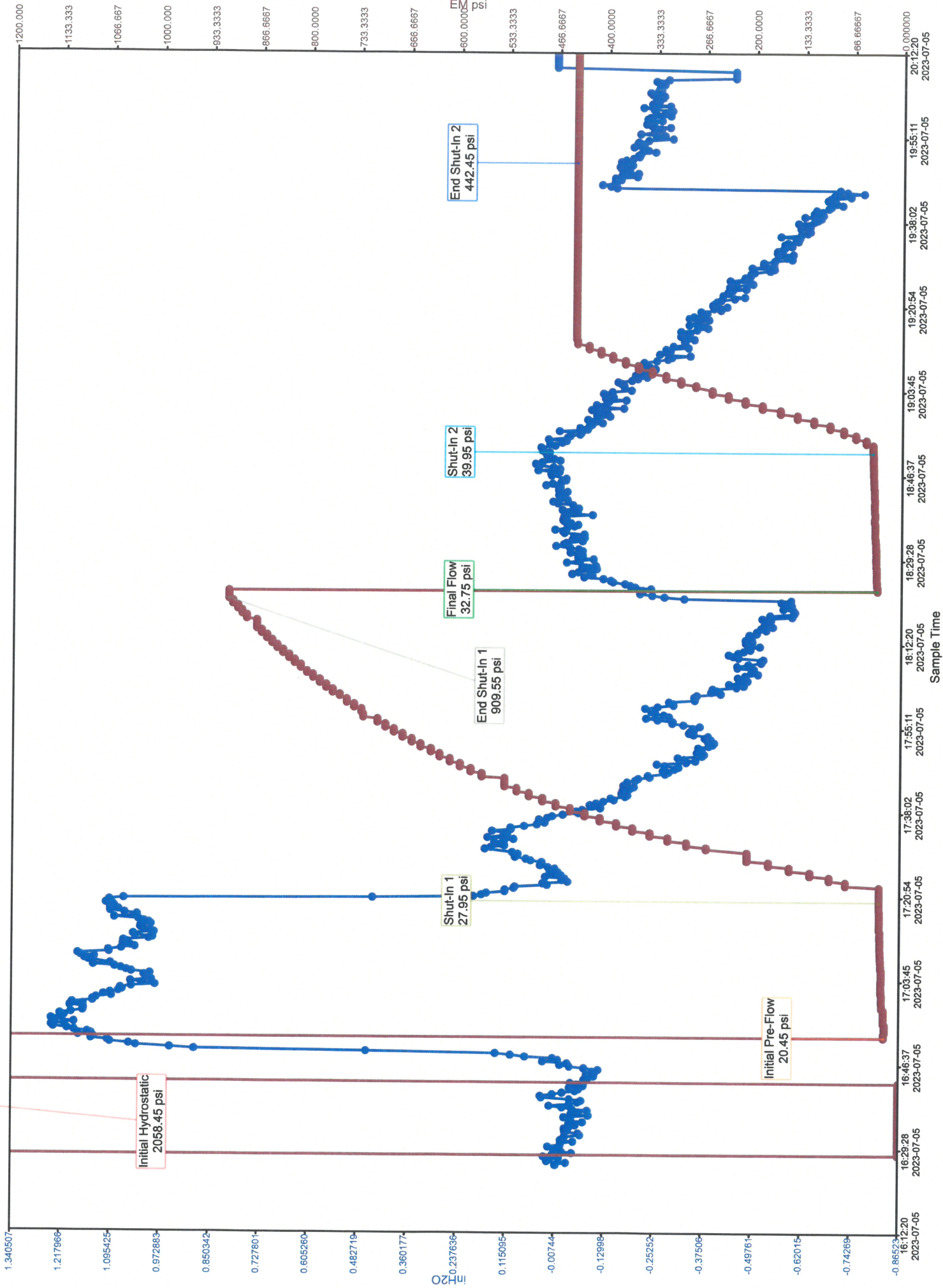
Antenna Unit #1-28

DST Test Number: 3

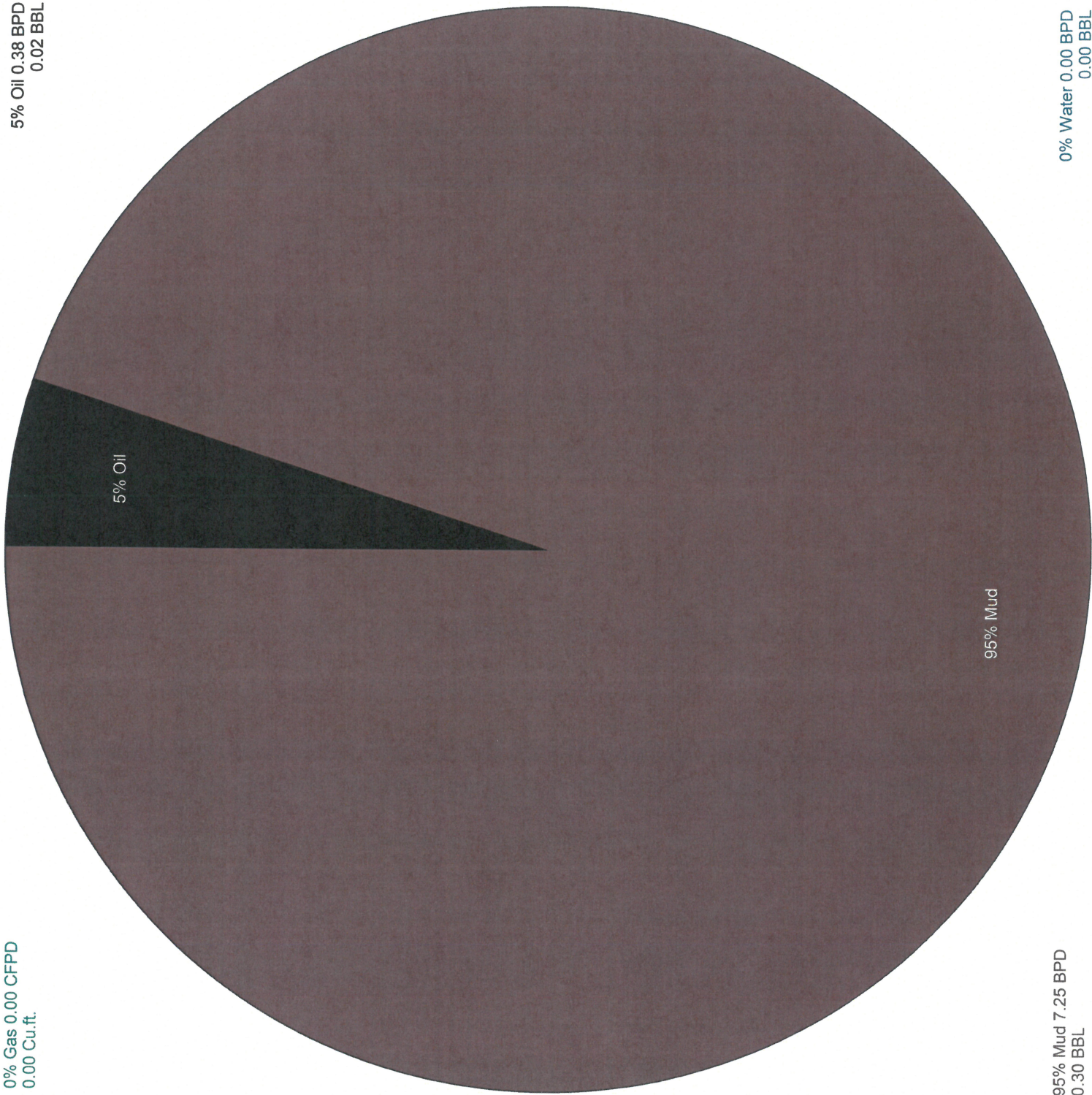
Pressure vs. Time



Grand Mesa Operating Company - Antenen Unit 1-28 - DST #3



Calculated Recovery Analysis - Grand Mesa Operating Company - Antenen Unit 1-28 - DST #3





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront Pkwy
Bldg 600
Wichita, Ks 67206
ATTN: Garet Dinkel

28 19s 23w Ness Ks

Antenen Unit #1-28

Job Ticket: 70244

DST#: 4

Test Start: 2023.07.06 @ 20:46:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:57:45

Time Test Ended: 05:06:30

Test Type: Conventional Straddle (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: **4336.00 ft (KB) To 4415.00 ft (KB) (TVD)**

Total Depth: 4541.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8845

Outside

Press@RunDepth: 117.68 psig @ 4341.00 ft (KB)

Start Date: 2023.07.06

End Date:

2023.07.07

Start Time: 20:46:05

End Time:

05:06:29

Capacity: 8000.00 psig

Last Calib.: 2023.07.07

Time On Btm: 2023.07.06 @ 22:57:30

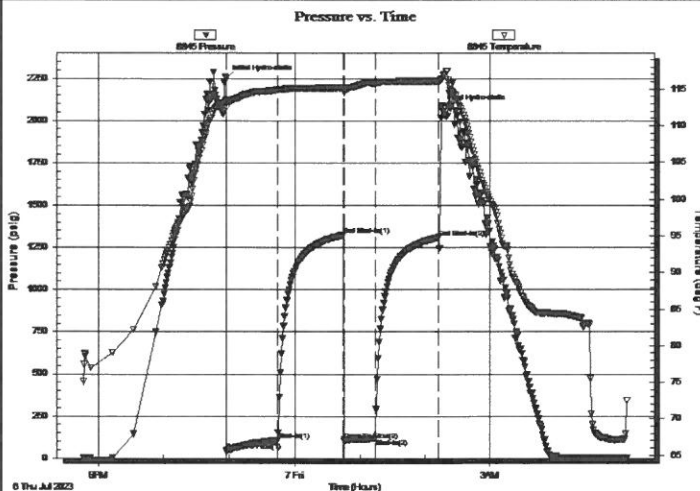
Time Off Btm: 2023.07.07 @ 02:15:15

TEST COMMENT: IF: 5 1/2" blow.

IS: No return.

FF: 2" blow.

FS: No return. 45-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2250.20	113.55	Initial Hydro-static
1	41.68	112.51	Open To Flow (1)
47	105.38	114.89	Shut-In(1)
107	1325.26	115.17	End Shut-In(1)
108	107.51	114.49	Open To Flow (2)
137	117.68	115.80	Shut-In(2)
196	1310.20	116.07	End Shut-In(2)
198	2070.25	116.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
175.00	sow cm 1o 19w 80m	1.36

* Recovery from multiple tests

Gas Rates

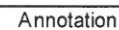
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



Test Start: 2023.07.06 @ 20:46:00

KB to GR/CF: 7.00 ft

FSI: No return. 45-60-30-60



Gas Rate (Mcf/d)

Printed: 2023.07.07 @ 07:26:51



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront Pkwy
Bldg 600
Wichita, Ks 67206
ATTN: Garet Dinkel

28 19s 23w Ness Ks

Antenen Unit #1-28

Job Ticket: 70244

DST#: 4

Test Start: 2023.07.06 @ 20:46:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:57:45

Time Test Ended: 05:06:30

Test Type: Conventional Straddle (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: **4336.00 ft (KB) To 4415.00 ft (KB) (TVD)**

Total Depth: 4541.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8319 Inside

Press@RunDepth: psig @ 4341.00 ft (KB)

Start Date: 2023.07.06

End Date: 2023.07.07

Capacity: 8000.00 psig

Last Calib.: 2023.07.07

Start Time: 20:46:05

End Time: 05:06:29

Time On Btm:

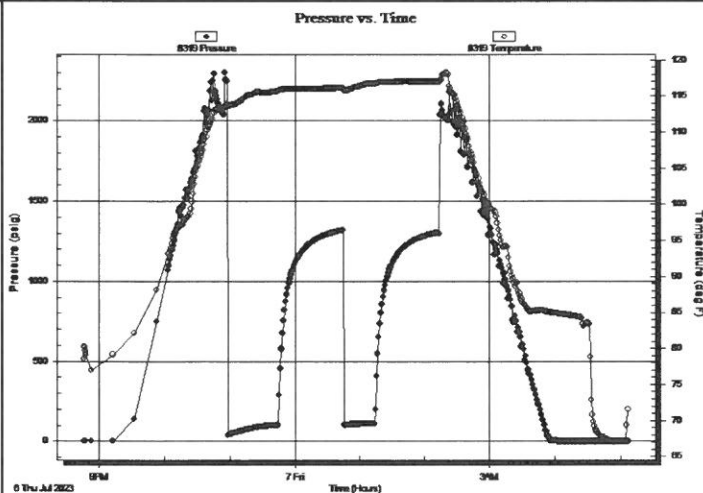
Time Off Btm:

TEST COMMENT: IF: 5 1/2" blow.

IS: No return.

FF: 2" blow.

FSI: No return. 45-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
-------------	-----------------	--------------	------------

Recovery

Length (ft)	Description	Volume (bbl)
175.00	sow cm 1o 19w 80m	1.36

* Recovery from multiple tests

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
----------------	-----------------	------------------



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co.

28 19s 23w Ness Ks

1700 N Waterfront Pkwy

Antenen Unit #1-28

Bldg 600

Job Ticket: 70244

DST#: 4

Wichita, Ks 67206

Test Start: 2023.07.06 @ 20:46:00

ATTN: Garet Dinkel

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
175.00	sow cm 1o 19w 80m	1.362

Total Length: 175.00 ft

Total Volume: 1.362 bbl

Num Fluid Samples: 0

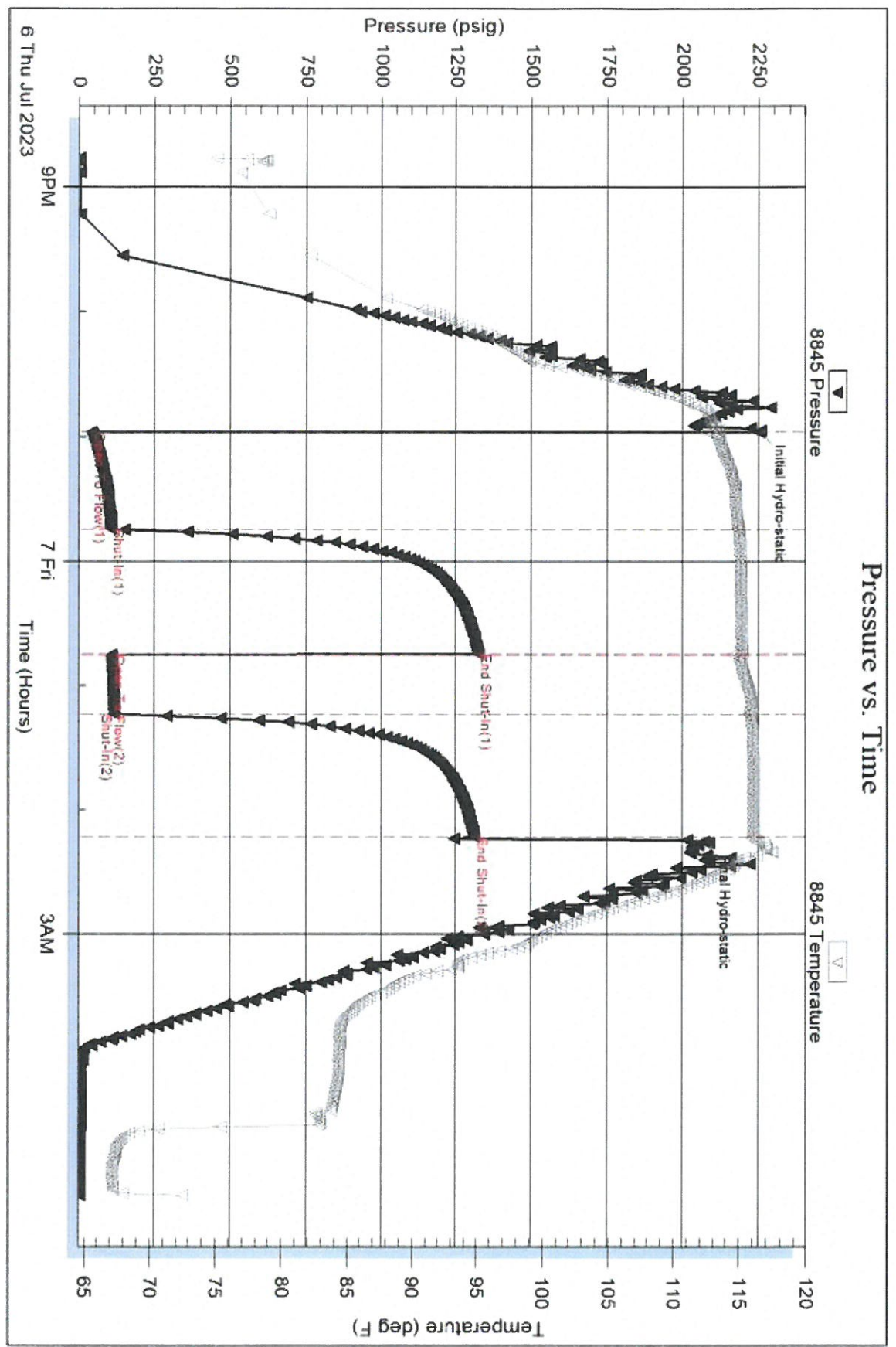
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

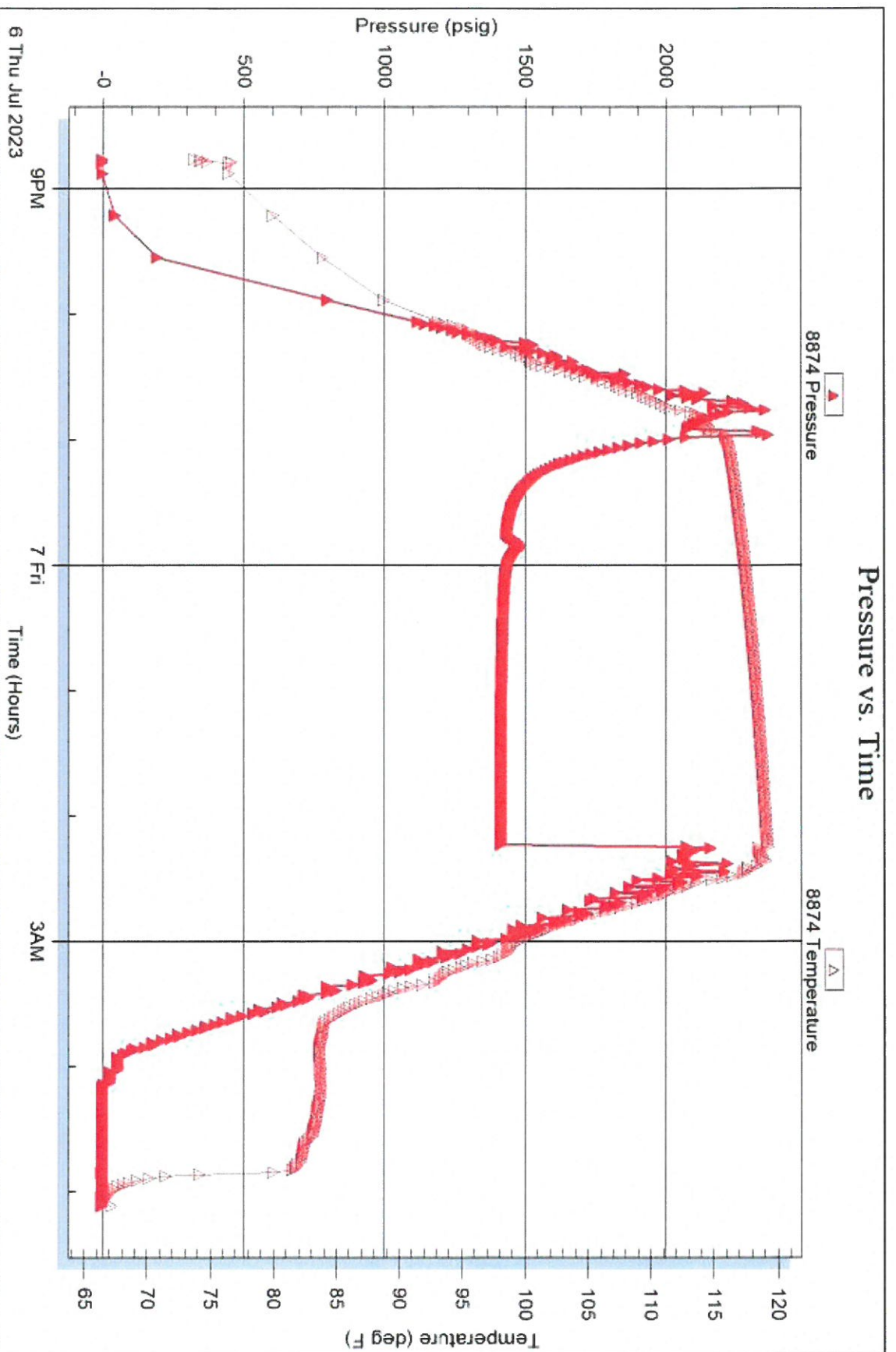


Serial #: 8874

Below (Stratified) Mesa Operating Co.

Antenna Unit #1-28

DST Test Number: 4



Serial #: 8319

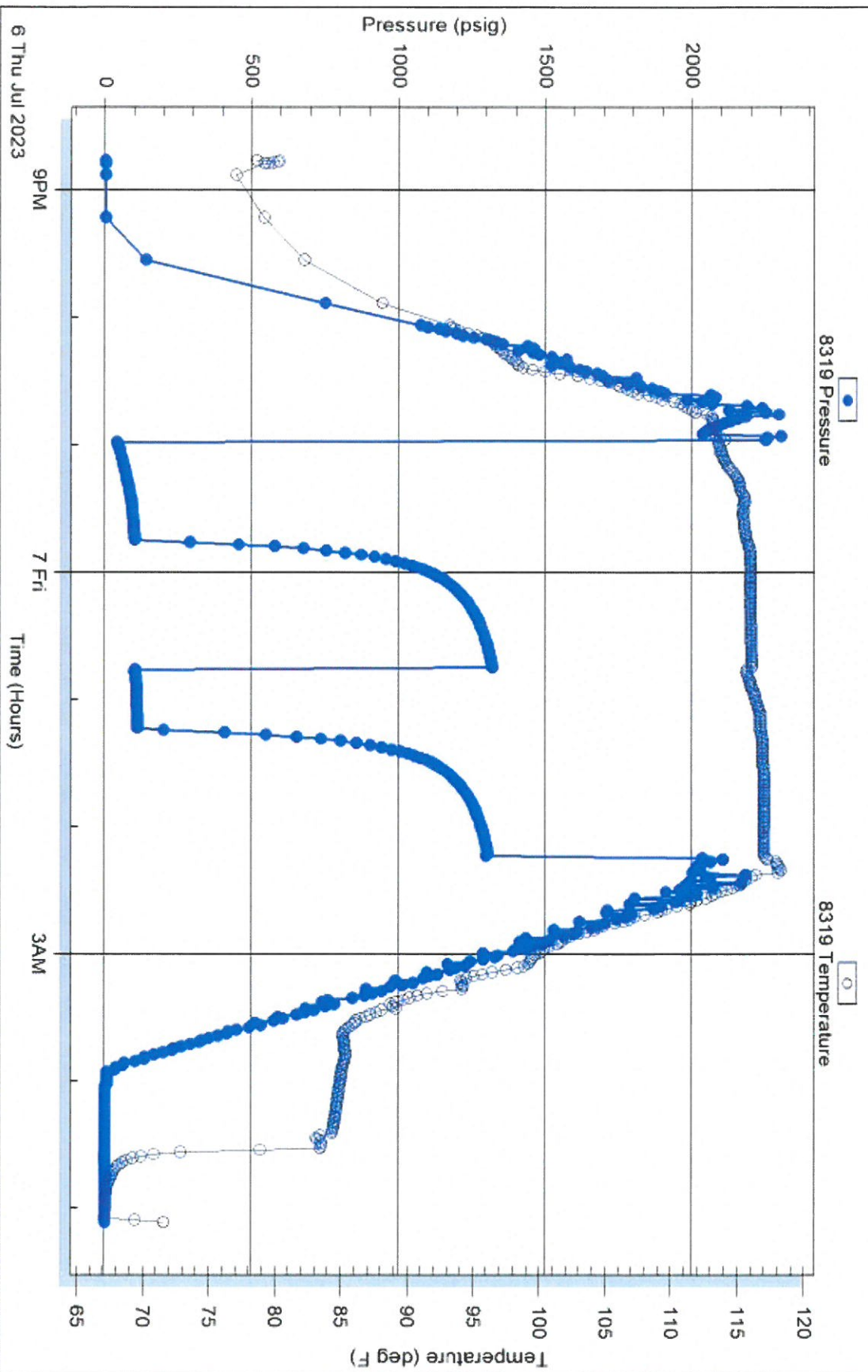
Inside

Grand Mesa Operating Co.

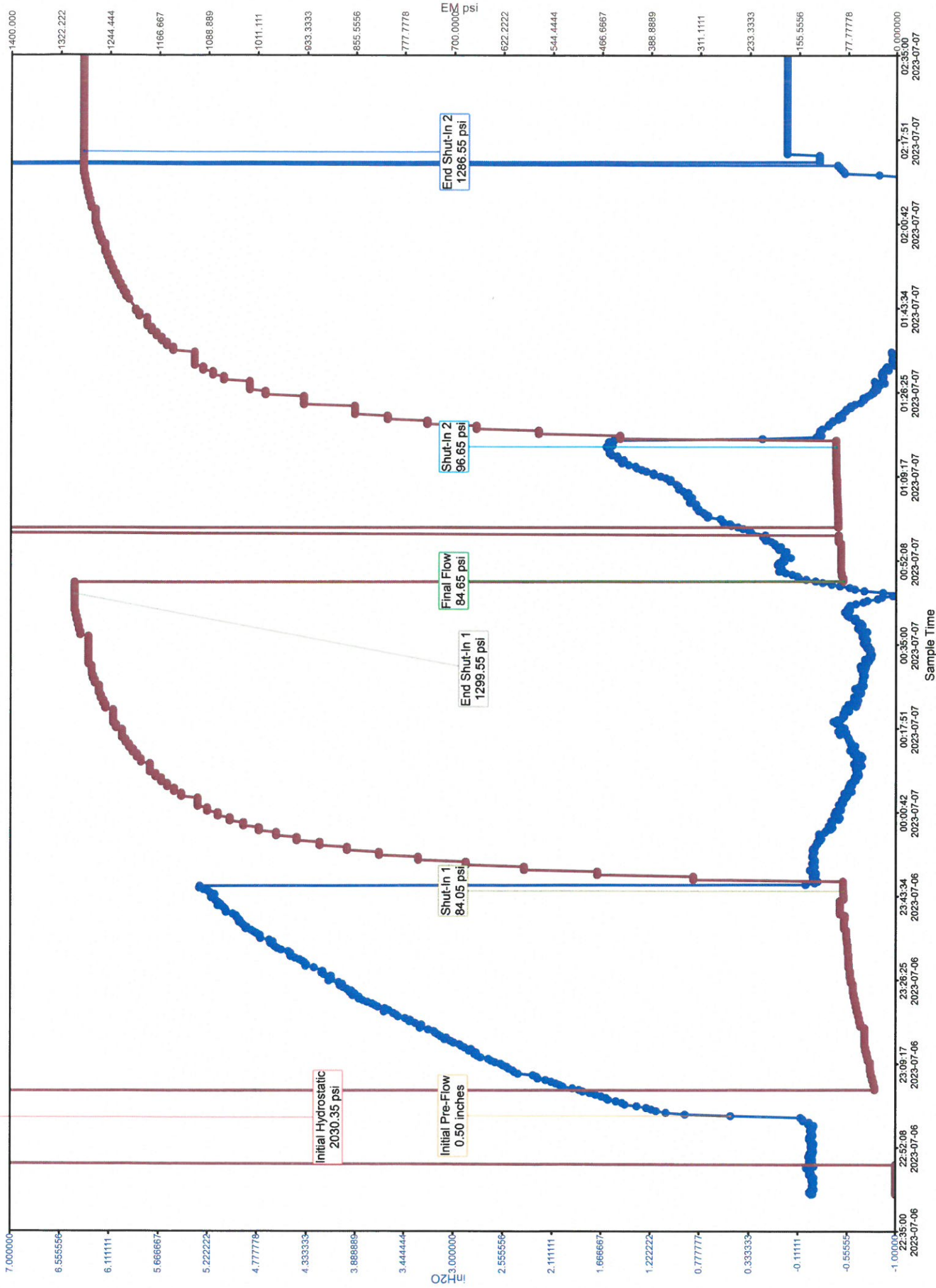
Antenna Unit #1-28

DST Test Number: 4

Pressure vs. Time



Grand Mesa Operating Company - Antenen Unit 1-28 - DST #4



Calculated Recovery Analysis - Grand Mesa Operating Company - Antenen Unit 1-28 - DST #4



GRAND MESA

OPERATING COMPANY

(316)-265-3000
FAX: (316) 265-3455

1700 N. WATERFRONT PARKWAY
BLDG. 600
WICHITA, KANSAS 67206-5514

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Antenen Unit #1-28
API: 15-135-26208
Location: NE NE NE NW Sec.28 19S-23W
License Number: 9855
Spud Date: 6/29/2023
Surface Coordinates: (152 FNL 2468 FWL)
Lat: 38.377692
Bottom Hole (Same)
Coordinates:
Ground Elevation (ft): 2283 K.B. Elevation (ft): 2290
Logged Interval (ft): 3400 To: 4541 Total Depth (ft): 4541
Formation: Mississippian (Gilmore City)
Type of Drilling Fluid: Waterbased Chemical Mud
Region: Kansas
Drilling Completed: 7/08/2023

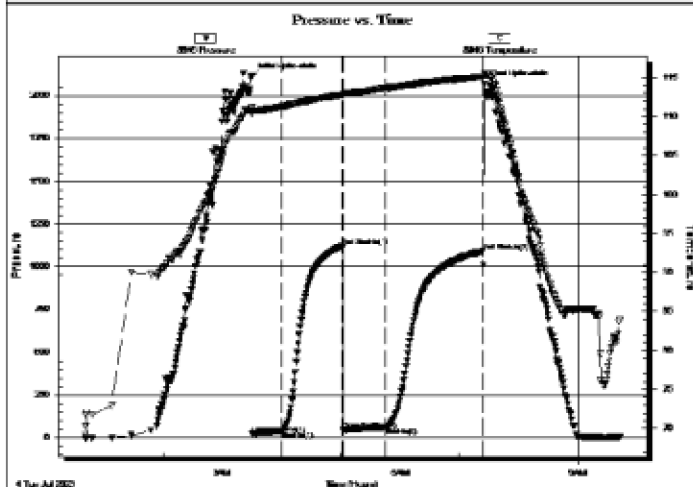
Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

GEOLOGIST

Name: Gareth Dinkel
Company: Grand Mesa Operating Company
Address: 1700 North Waterfront Parkway
Building #600
Wichita, Kansas 67206

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	Grand Mesa Operating Co. 1700 N Waterfront Pkwy Bldg 600 Wichita, KS 67206 ATTN: Gareth Dinkel	28 19s 23w Ness, KS Antenen Unit #1-28 Job Ticket: 70241 DST#: 1 Test Start: 2023.07.04 @ 00:41:00
GENERAL INFORMATION:		
Formation: Ft Scott Deviated: No Whipstock: ft (KB) Time Tool Opened: 03:30:30 Time Test Ended: 09:42:45	Test Type: Conventional Bottom Hole (Initial) Tester: Bradley Walter Unit No: 78	
Interval: 4240.00 ft (KB) To 4305.00 ft (KB) (TVD) Total Depth: 4305.00 ft (KB) (TVD) Hole Diameter: 7.88 inchesHole Condition: Good	Reference Elevations: 2290.00 ft (KB) 2283.00 ft (CF) KB to GR/CF: 7.00 ft	
Serial #: 8845 Outside Press@RunDepth: 62.56 psig @ 4241.00 ft (KB) Start Date: 2023.07.04 End Date: 2023.07.04 Start Time: 00:41:05 End Time: 09:42:45	Capacity: 8000.00 psig Last Calib.: 2023.07.04 Time On Btm: 2023.07.04 @ 03:30:15 Time Off Btm: 2023.07.04 @ 07:25:45	
TEST COMMENT: IF: 3/4" blow . IS: No return		

IS: No return.
FF: 1" blow ,
FS: No return. 30-60-45-90



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.28	111.13	Initial Hydro-static
1	24.25	110.27	Open To Flow (1)
30	42.44	111.27	Shut-In(1)
92	1121.63	112.82	End Shut-In(1)
92	48.97	112.64	Open To Flow (2)
136	62.56	113.65	Shut-In(2)
234	1092.39	115.13	End Shut-In(2)
236	2067.12	115.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Mud 100m (oil spots in tool)	0.49

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront Plw y
Bldg 600
Wichita, KS 67206
ATTN: Garet Dinkel

28 19s 23w Ness, KS

Antenen Unit #1-28

Job Ticket: 70242

DST#: 2

Test Start: 2023.07.04 @ 23:16:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:45

Time Test Ended: 07:42:45

Interval: 4335.00 ft (KB) To 4383.00 ft (KB) (TVD)

Total Depth: 4305.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8845 Outside

Press@RunDepth: 53.02 psig @ 4336.00 ft (KB)

Start Date: 2023.07.04 End Date: 2023.07.05

Start Time: 23:16:05 End Time: 07:42:44

Capacity: 8000.00 psig

Last Calib.: 2023.07.05

Time On Btm: 2023.07.05 @ 02:03:30

Time Off Btm: 2023.07.05 @ 05:05:30

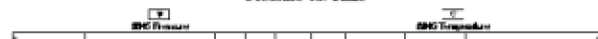
TEST COMMENT: IF: 1" blow , receding to 1/2"

IS: No return.

FF: Surface blow , died in 20 min.

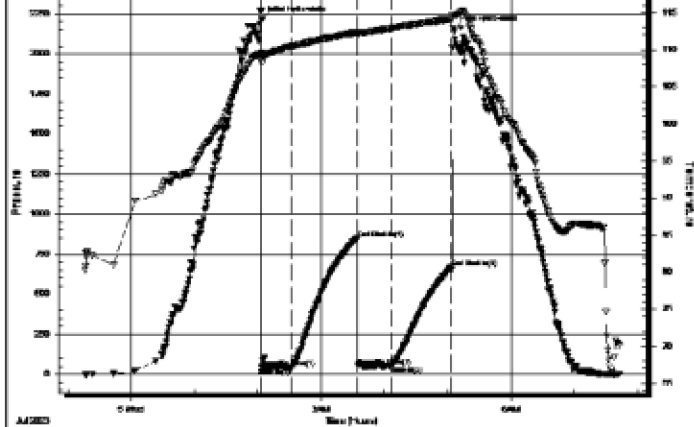
FS: No return. 30-60-30-60

Pressure vs. Time



PRESSURE SUMMARY

Time	Pressure	Temp	Annotation
------	----------	------	------------



(Min.)	(psig)	(deg F)	
0	2213.26	109.54	Initial Hydro-static
1	41.87	108.25	Open To Flow (1)
28	42.09	110.43	Shut-In(1)
91	848.02	112.34	End Shut-In(1)
92	51.54	112.03	Open To Flow (2)
123	53.02	112.93	Shut-In(2)
180	666.92	114.15	End Shut-In(2)
182	2153.25	114.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	ocm 50 95m	0.22

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



DRILL STEM TEST REPORT

Grand Mesa Operating Co.

28 19s 23w Ness, KS

1700 N Waterfront Pkwy
Bldg 600
Wichita, KS 67206
ATTN: Garet Dinkel

Antenen Unit #1-28

Job Ticket: 70243

DST#: 3

Test Start: 2023.07.05 @ 14:43:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:50:30

Time Test Ended: 22:05:30

Interval: 4330.00 ft (KB) To 4393.00 ft (KB) (TVD)

Total Depth: 4393.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8845

Outside

Press@RunDepth: 55.20 psig @ 4331.00 ft (KB)

Start Date: 2023.07.05

End Date:

2023.07.05

Start Time: 14:43:05

End Time:

22:05:29

Capacity: 8000.00 psig

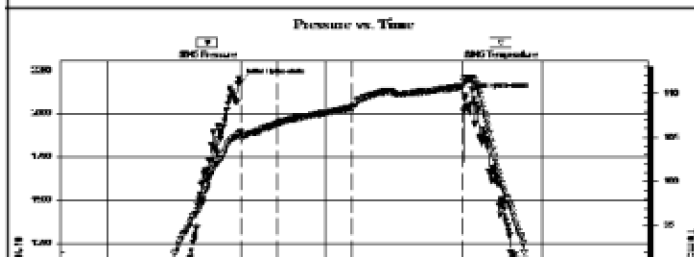
Last Calib.: 2023.07.05

Time On Btm: 2023.07.05 @ 16:50:00

Time Off Btm: 2023.07.05 @ 19:55:30

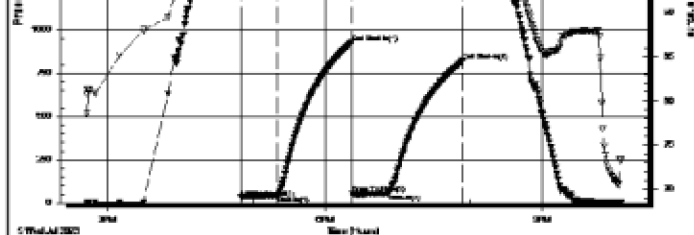
TEST COMMENT:

IF: 1" blow
IS: No return.
FF: Surface blow,
FS: No return. 30-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2179.82	105.57	Initial Hydro-static
1	32.08	104.79	Open To Flow (1)
31	42.72	106.52	Shut-In(1)
92	925.86	108.32	End Shut-In(1)
93	51.19	108.23	Open To Flow (2)



123	55.20	110.25	Shut-In(2)
184	819.57	110.76	End Shut-In(2)
186	2099.69	111.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	socm 2o 98m	0.31
2.00	oil 100o	0.01

* Recovery from multiple tests

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront Plw y
Bldg 600
Wichita, KS 67206
ATTN: Garet Dinkel

28 19s 23w Ness, KS

Antenen Unit #1-28

Job Ticket: 70244

DST#: 4

Test Start: 2023.07.06 @ 20:46:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:57:45

Time Test Ended: 05:06:30

Test Type: Conventional Straddle (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4336.00 ft (KB) To 4415.00 ft (KB) (TVD)

Total Depth: 4541.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2290.00 ft (KB)

2283.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8845 Outside

Press@RunDepth: 117.68 psig @ 4341.00 ft (KB)

Start Date: 2023.07.06

End Date:

2023.07.07

Start Time: 20:46:05

End Time:

05:06:29

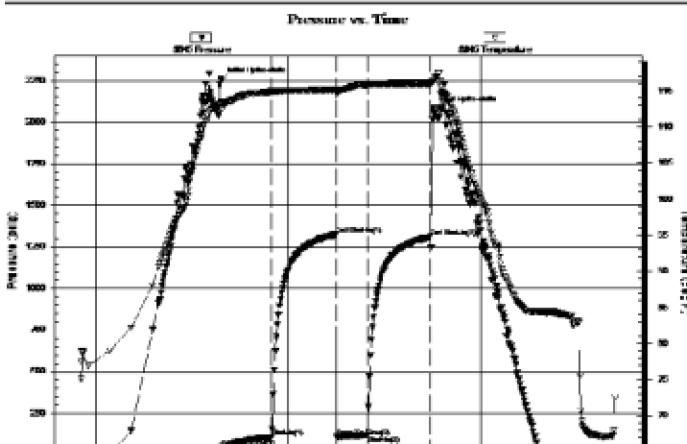
Capacity: 8000.00 psig

Last Calib.: 2023.07.07

Time On Btm: 2023.07.06 @ 22:57:30

Time Off Btm: 2023.07.07 @ 02:15:15

TEST COMMENT: IF: 5 1/2" blow .
IS: No return.
FF: 2" blow .
FS: No return. 45-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2250.20	113.55	Initial Hydro-static
1	41.68	112.51	Open To Flow (1)
47	105.38	114.89	Shut-In(1)
107	1325.26	115.17	End Shut-In(1)
108	107.51	114.49	Open To Flow (2)
137	117.68	115.80	Shut-In(2)
196	1310.20	116.07	End Shut-In(2)
198	2070.25	116.31	Final Hydro-static

Recovery

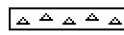
Length (ft)	Description	Volume (bbl)
175.00	sow cm 1o 19w 80m	1.36

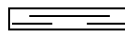
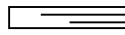
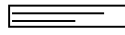
* Recovery from multiple tests

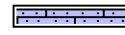
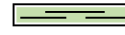
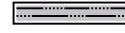
Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------

ROCK TYPES

 Anhy
 Cht
 Coal
 Congl
 Dol
 Gyp
 Lmst

 Salt
 Shale
 Shcol
 Shgy
 Slst
 Ss
 Carb sh

 Dol
 Dtd
 Gry sh
 Sandylms
 Shale
 Slstn
 Shlyslts

 Sltysh
 Sdy dolo
 Silty dolo
 Shy dolo
 Shaly ls

Curve Track 1

ROP (min/ft)

Total Gas

C1

C2

C3

C4

C5

Lithology

CFS Point

Oil Shows

Geological Descriptions

Remarks

ROP (min/ft) 10
 Total Gas 100
 C1 100
 C2 100
 C3 100
 C4 100
 C5 100
 RIG ROP 10

ROP (min/ft) 10
 Total Gas 100
 C1 100
 C2 100
 C3 100
 C4 100
 C5 100
 RIG ROP 10

Anhydrite
 Drill Time
 1500-1600

TOP
 1,547 (+743)

Grand Mesa Operating Company
 Antenen Unit #1-28
 NE NE NE NW Sec.28 T19S-R23W
 GL: 2,283ft. KB: 2,290 ft.
 RTD: 4,541 ft. LTD: 4,541

Company Representative : Mr. Steve Stribling
 Office: (316)-265-3000

Drilling Contractor: Pickrell Drilling Company
 Rig # 10
 Rig: (620)-282-1036
 Office: (316)-262 8427

Tool Pusher: Scotty Piland
 Cell: (620)-639-1843

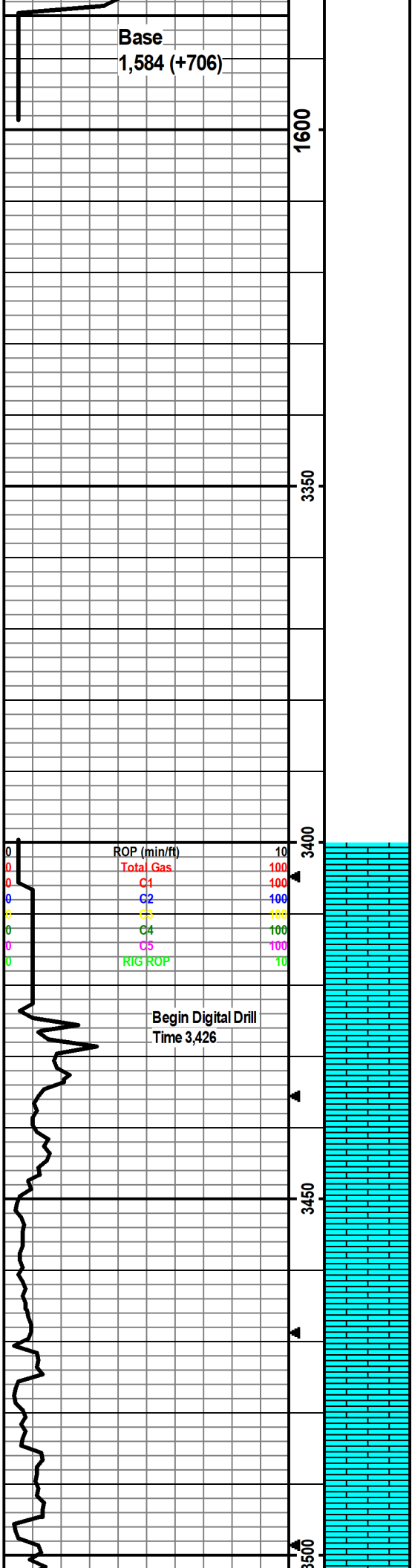
Drilling Fluids: Mud-co/Service Mud Inc.
 Mr. Justin Whiting
 Cell: (620)-214-3630

Drill Stem Testing: Trilobite Testing
 Mr. Bradley Walter
 Cell: (785) 623-1407

Wireline Logs: Gemini Wireline
 (CDNLw/PE-DIL-Micro,Sonic)
 Mr. Gus Pfanenstiel
 785-735-7112

Mud-Co Mud Check #1
 6/30/23
 Make-up Water
 400 ppm Chloride
 80 ppm Calcium

Mud-Co Mud Check #2
 6/30/23
 805 ft.
 Wt. 8.9
 Vis. 28
 LCM 0#



Daily Drilling Chronology

6/29/23 MIRT - Spud 1:30 PM - Surface 6 jts 8-5/8" 253'
@ 263 ' KB
Cmtd w/ 200sx
Std.3%CC 2%Gel CDC (Swift)
Did Circulate
Plug Down 8:30 PM; Drill Out 4:30 A.M

6/30/23 Drlg: 408 ft.
7/01/23 Drlg: 2,325 ft.
7/02/23 Drlg: 3,453 ft.
7/03/23 Drlg: 4,194 ft.
7/04/23 DST1: 4,305 ft.
7/05/23 TOH DST2: 4,383 ft.
7/06/23 Drlg: 4,509
7/07/23 TIH to Plug 4,541 ft.
7/08/23 Plug Rig Down

Daily Cost \$2,051.90
Cum. Cost \$2,051.90

Mud-Co Mud Check #3
7/01/23
2489 ft.
Wt. 9.7
Vis. 28
LCM 0

Daily Cost \$4,537.75
Cum. Cost \$6,589.65

Bit Record

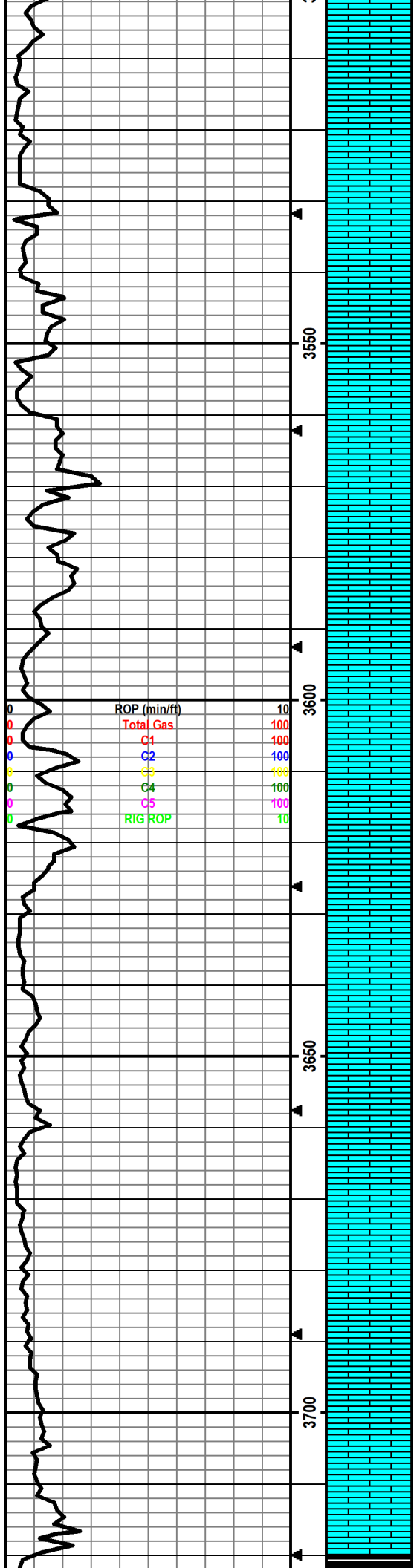
1. Smit 12-1/4"
0-264 ft.
2. Smith -7-7/8" PDC
Model: MDSI 516
Serial: JV4954
In: 264ft Out: 4,292 ft.
3. Smith -7-7/8" Cone Bit
Model: F27
Serial: RP6294
In: 4,292ft Out: 4,541 ft.

Geologist on location 7/2/2023 5:36 A.M. 3,376

Begin 20ft samples at 3,500 ft

Ls-crm-gry, micro-xln, sl. dense, earthy, sl. sandy, w/ f-g inner-xln por. NS NO 3520

Ls- crm, mico-xln, sl. dense, earthy, arg, sl. sandy, no vis por., NS NO 3540



Ls- cm, micro-xln, sl. dense, sl.foss (crin) earthy, arg, sl. sandy, no vis por NS NO 3560

Ls-cm mott bm, micro-xln, sl. dense, earthy, arg, no vis por. NS NO 3580

Ls- cm - bm, micro-xln, sl. dense, foss frags (ool-cm), earthy, arg, sl. sandy no vis por., NS NO 3600

Flood Ls - wht-bone, micro-xln, dense, no vis por., NS NO 3620

Ls- mostly cm-bone, mico-xln dense, few sl. dense v.sandy w/ f-g inter gran por. NS NO 3640

Ls - bone-cm, micro-xln, sl. dense, w/ siltstn-gry-grm dense waxy, no vis por., NS NO 3660

Flood Ls cm-bm, micro-xln, sl. dense, v. sandy w/ f-g inter-gran por. NS NO 3680

Ls cm-bm, micro-xln, sl. dense, earthy, sl sandy, no vis por NS NO 3700

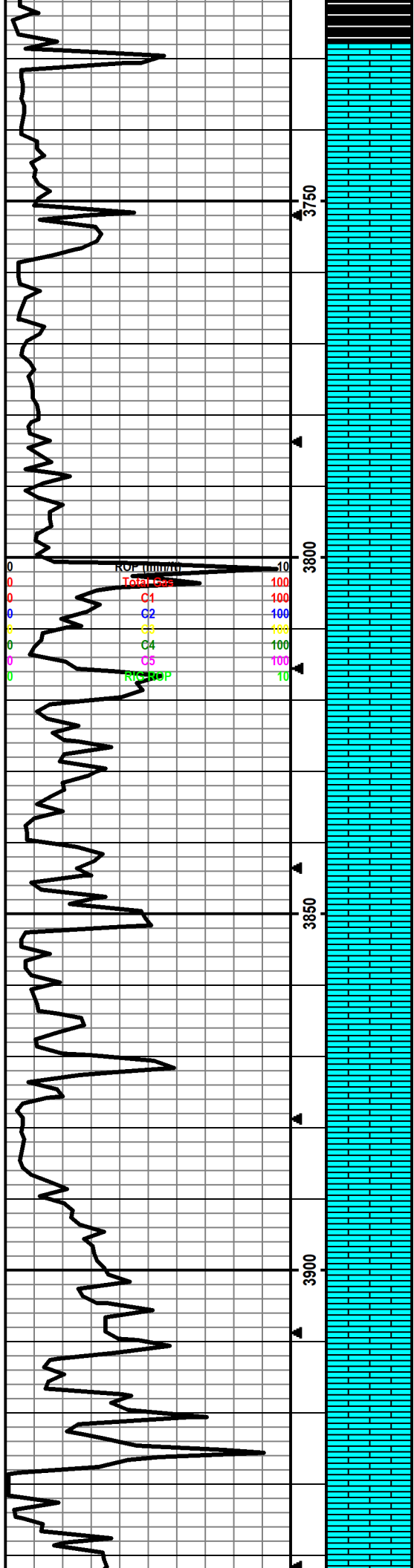
Ls-cm-bm, micro-xln, sl.dense, sl foss (frgs-ool) earthy, arg. sl. sandy, w/ f-g inter foss-inter-xln por, NS NO 3720

Ls-cm mott bm, micro-xln, sl. dense, arg, no vis por., NS NO 3740

Heebner Shale 3,720ft. (-1,430)

Mud-Co Mud Check #4
7/2/23
3,657 ft.
Wt. 8.9
Vis. 50
LCM 2

Daily Cost \$4,315.43
Cum. Cost \$10,905.08



Flood Sh-blk, dense sl. carb, w/ Ls crm-gry, micro-xln dense, No vis por., NS NO 3760

Predom LS-crm-gry, micro-xln, sl dense, sl. sparry, f. inter-xln por. w/ abun Siltstn-gry-grm dense NS NO 3780

Ls-crm, micro-xln, sl. dense sparry-pelletal, few w/ sl inter foss por., w/ abun siltstn gry-gren dense waxy NS NO 3800

Ls- crm-bone, micor-xln, dense, sparry , no vis por., NS NO 3820

Ls-crm, micro-xln, dense, few sl.foss (crin) no vis por., NS NO 3840

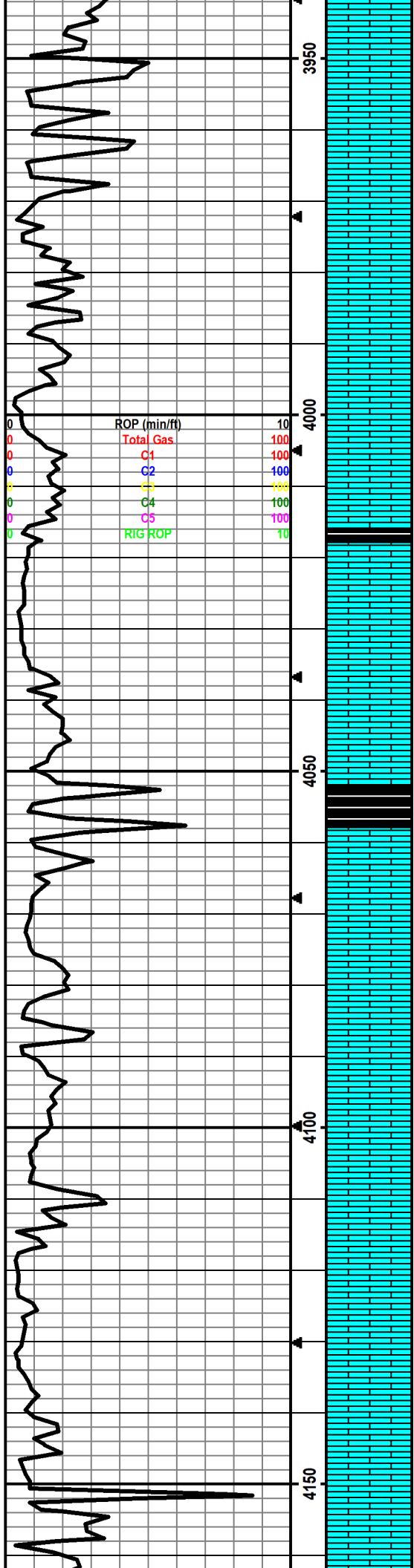
Ls-crm, micro-xln, dense, sparry, w/ f-g. inter-xln por., NS NO. 3860

Ls-crm-tan, micro-xln, dense, sl foss (frags-pelletal) no vis por, NS NO 3880

Ls-crm, micro-xln, dense, no vis por., NS NO 3900

Ls-crm-bone, mico-xln, dense, few sl. foss (pelletal-ool) w/ hvy re-xln spar. no vis por., NS NO 3920

Ls-crm-wht, mico-xln, soft, sl. chalky, no vis por., NS NO 3940



Predom Ls- cm mott brn, dense, few sl. foss (pelletal) sparry, w/siltone-gry-blk dense waxy no vis por., NS NO 3960

Ls- cm- tan, micro-xln, dense, no vis por. NS NO 3980

Ls- cm, micro-xln, sl. dense, foss (ool) w/ f. oolcastic porosity, NS NO 4000

Ls- cm-tan, micro-xln, sl. dense, no vis por., NS NO 4020

Ls- bone, micro-xln, sl. dense, no vis por. NS NO 4040

Stark Shale 4,015ft. (-1,726)

Predom Ls- cm-tan, micro-xln, sl. dense, few sl. arg. foss (frags-ool) w/ f.-g inner foss por. w/ scat Sh. blk dense NS NO 4060

Hushpuckney Shale 4,053ft. (-1,763)

Ls- gry-bone, micro-xln, dense w/ few scat Sh, blk dense, NS NO 4080

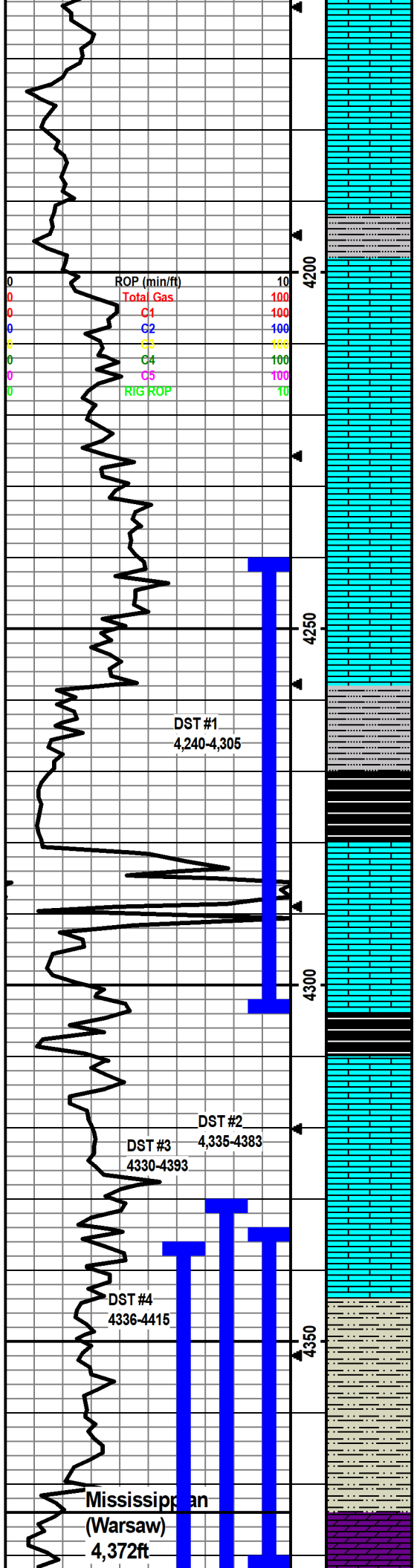
Ls- cm, micro-xln dese, foss (pelletal-ool) NS NO 4100

LS- cm-bm, micro-xln dense, sparry, no vis por., NS NO 4120

Ls cm-gry, micro-xln, dense, w/ siltstn gry-gm dense, No vis por., NS NO 4140

Predom Ls- cm-bm, micro-xln v.dense, sparry w/ flood siltstn-red-marron, gry-gm, no vis por. NS NO 4160

Ls-cm-bm, micro-xln dense sparry, few mottled and earthy, abun siltstn



red-maroon, NS NO. 4180

Ls- wht-bone, micro-xln, dense, no vis por. NS NO 4200

Ls- crm, micro-xln, dense, sl. sparry, few sl foss. (fuss) few sh- gry dense waxy no vis por NS NO 4220

Ls- crm, micro-xln, sl. dense, sl. sandy, no vis por. NS NO 4240

Ls- crm- gry, micro-xln, sl. dense, sl. sandy, no vis por., NS NO 4250

Begin 10ft Samples at 4,250ft

Ls- tan- brn, micro-xln, dense, sl. sparry, no vis por., NS NO 4260

Predom Ls- AA few siltstn gry- blk dense waxy NS NO 4270

Flood Sh- gry- blk dense waxy few sl. silty NS NO 4280

Sh- AA 4290

Predom Sh AA, Few Ls- crm- tan, micro-xln, v. dense, sparry, no vis por. NS NO 4300

Ls- wht- crm, micro-xln, sl. dense, w/ f- g. inter-xln por w/ FSFO, v. light brn- trans clingy, strong odor, f. bright green flour 10% 4305 30min

Ls- AA, few dense with pp- sl. vuggy por, FSFO, v. light brn- trans, strong odor. 4305 60min

Predom Sh- blk dense waxy w/ Ls- crm- brn, micro-xln, v. dense sparry, few foss (ool) no vis por., NS NO 4320

Ls crm- gry, micro-xln, v. dense, sparry no vis por., NS NO 4330

Ls crm- gry, micro-xln, v. dense, sparry, few w/ sl. poor inter-xln por. 2 pcs w/ v. sl. sfo, clingy, sl. stain sl. odor. no flour. 4340

Ls- crm- gry AA, sl. odor, NS, no flour. 4350

Ls- crm- gry, micro-xln, v. dense, few foss (ool) NS sl. odor no flour 4360

Predom Ls- tan- brn, micro-xln, v. dense, sparry, 3 pcs w/ poor inter-xln por, poor dark stain, sl. odor NSFO no flour 4363 30

Predom Ls- tan- brn, micro-xln, v. dense sparry, abun siltstn- mustard, grn, brn, dense waxy NS NO 4363 60min

Siltstn- mustard, marron, green, dense 4773 30min

Predom Siltstn- AA w/ v. few clust SS- yellow, v. f. grn w/ cmted w/ sorted no vis por., NS NO No flour 4773 60min

Flood DOLO- wht, f. grn, w/ f. inter-xln por., VGSFO drk brn livly, hvy blk saturated stain, f. lgt grn flour, inst. bright milky cut, hvy residual ring, strong odor 4383 30min

DOLO- AA w/ f. inter-xln por. NSFO, med mottled staining 100- 50% est. strong odor. 4383

DST#1
4,240-4,305
Ft. Scott
30-60-45-90

Rec.
100ft Mudw/Oil
spts
IHP: 2111
IF: 24-42
ISIP: 1121
FF: 48-62
FSIP: 1092
FHP: 2067

Mud-Co Mud Check #5
7/3/23
4,257 ft.
Wt. 9.1
Vis. 51
LCM 2.5

Daily Cost \$2,508.71
Cum. Cost \$13,413.79

Strap for DST#1
0.53 Short to
board

At 4,292ft drilling stopped.
Pickerell elected to trip for
bit. Button bit in hole

CFS 4,305ft
30/60min

Mud-Co Mud Check #6
7/04/23
4,305 ft.
Wt. 9.2
Vis. 50
LCM 2

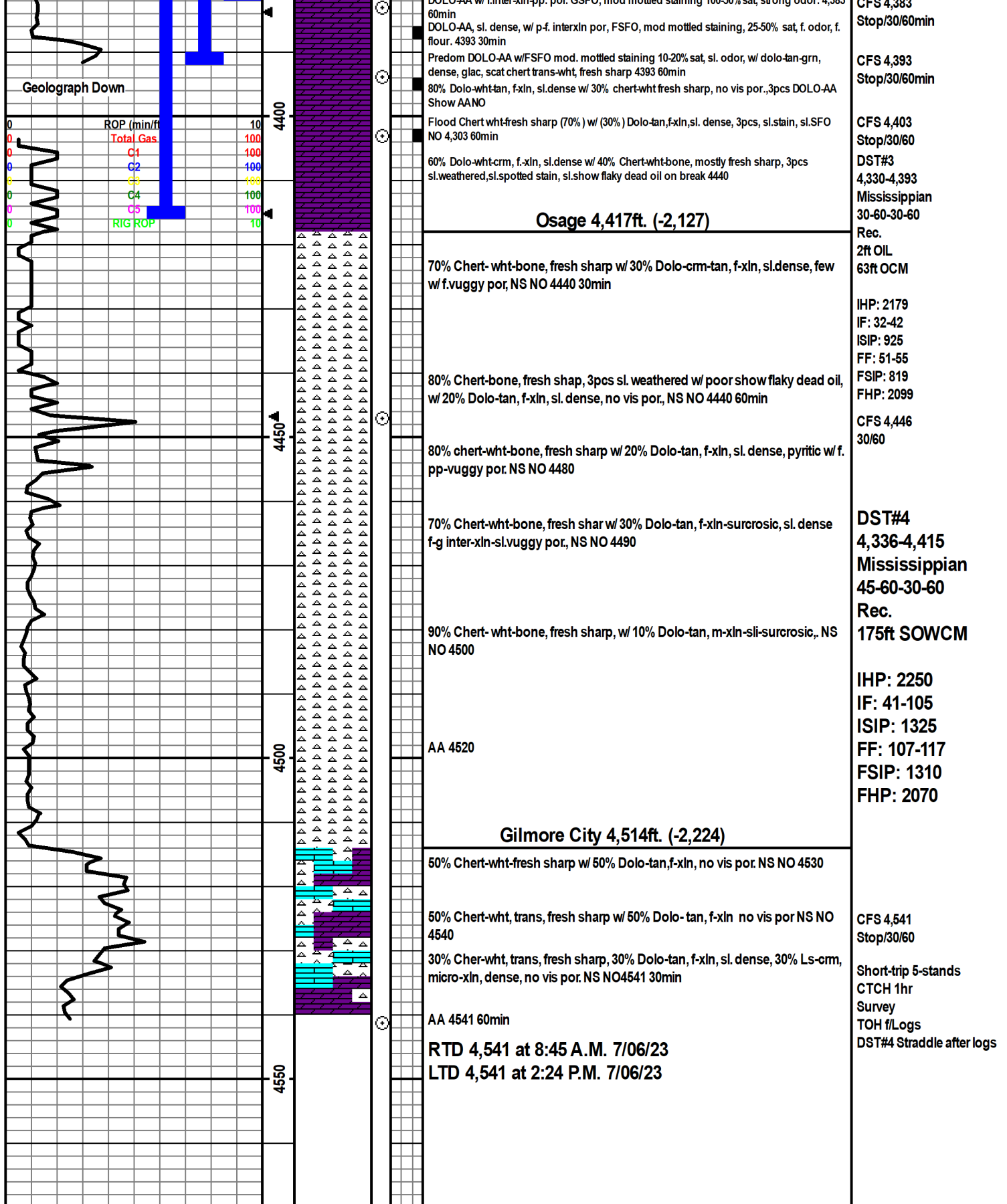
Daily Cost \$0
Cum. Cost \$13,413.79

DST#2
4,335-4,383
Mississippian
30-60-30-60
Rec.
45ft OCM

IHP: 2213
IF: 41-42
ISIP: 848
FF: 51-53
FSIP: 666
FHP: 2153

CFS 4,363ft
30/60min

CFS 4,373
Stop/30/60min



◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

FOREMAN *Sade*

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.